

circular invest

CIRCULAR ECONOMY FINANCING AN INVESTOR GUIDE

<http://www.circularinvest.eu/>



**Funded by
the European Union**

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Commission. Neither the European Union nor the European Research Executive Agency can be held responsible for them.

Contents

Purpose of this Guide	2
What is CircularInvest	2
Part I - Understanding circular economy investment	3
The circular economy as an investment case	4
Patterns in circular economy investment	6
Challenges with investing in the circular economy in practice	6
1. Business model challenges: Misalignment with mainstream financial assessment methodologies	7
2. Market challenges: Coordination failures and missing material markets	7
3. Economic challenges: Distorted incentives and price signals	8
What constitutes a circular economy investment in practice	9
Part II - Leveraging the circular economy as an investment opportunity	11
Value — Understanding and appraising value in the circular economy	12
1.1. Look beyond the sale: Alternative forms of value in the circular economy	12
1.2. Develop alternative lending structures better suited to service models	13
1.3. Don't assume that assets depreciate in a linear fashion	14
1.4. Recognise residual value of assets to improve the investment case	15
1.5. Explore systemic funding approaches	15
In summary	16
Risk — Understanding and assessing circular risk	17
2.1. Understand and assess exposure to resource risk of linear models	18
2.2. Improve risk assessment of circular model-specific risks	19
2.3. Distinguish real risk from methodological bias	20
In summary	21
Impact — Measuring and monitoring the impact of circular economy investment	23
3.1. Determine relevant impact outcomes	24
3.2. Define the assessment level	24
3.3. Map circular activities to impact pathways	26
3.4. Choose indicators that capture circular performance and wider outcomes	27
3.5. Establish baselines and provide additionality	30
Conclusion	33
In summary: Applying a circular economy lens across the investment process	34



Purpose of this Guide

Many pertinent and persuasive guides, whitepapers and thought-leadership reports position the circular economy as a substantial and largely untapped investment opportunity for the financial sector that needs to be 'unlocked'. Between them, they introduce the multi-faceted benefits of circular economy models as an investment case, from their environmental and social impact to portfolio risk-management benefits, such as reduced exposure to virgin resource supply chains, and the potential for superior long-term returns compared to linear incumbents in a range of sectors and applications.

Less common, however, is practical guidance for the investors looking to leverage this opportunity and navigate the challenges and barriers associated with doing so. While the circular economy has gained significant global recognition, alongside rising levels of investment in recent years, the specific implications of financing circular models are not yet universally understood or fully appreciated. The nature of circular business models and the way in which they fundamentally shift the relationship between companies, resources, products and revenue generation has substantial implications for the core components of an investment case: value, risk, and impact. For investors looking to capture the circular economy as an investment opportunity, a more comprehensive understanding of these dynamics is key.

As such, this document serves as a practical guide for investors engaging with the circular economy. It is intended to be broadly suitable to multiple stages and type of business, and is structured in line with these three key dimensions of the investment case – value, risk and impact – and presents the nuances of circularity in each case, as well as citing the most relevant existing resources, tools and frameworks to be considered. The guide is intended to be a succinct overview of the specific considerations for circular economy investment. Given the intended audience, it assumes an understanding of general investment vernacular and processes, and therefore focuses specifically on the circular economy-related nuances.

What is CircularInvest

CircularInvest is an initiative designed to address the demand-side of the circular economy financing challenge, helping project developers and entrepreneurs build the capacity to secure the resources needed to scale and sustain impactful businesses. Through tailored support, CircularInvest has worked with projects across different sectors and maturity levels to strengthen business models, refine investment propositions, and connect with relevant financiers.

This guide distils the knowledge and insights gathered during the delivery of the programme into a practical manual, offering the investment community a detailed

overview of each of the specific considerations required to adequately identify, appraise and fund circular economy ventures.

Pending Approval

circular
invest

Part I – Understanding Circular Economy Investment

The circular economy as an investment case

Considered at the theoretical level, the underlying logic of the circular economy makes for a compelling investment case. The entire premise is rooted in the retention and ongoing capture of created value, which opens up multiple new opportunities to develop business models and generate revenue. The Value Hill infographic in Figure 1 depicts this clearly. In the linear model on the left, value degrades post-use. In contrast, the circular model on the right retains value across multiple stages, creating further opportunities to deliver services to customers and improve efficiency in the production process itself.

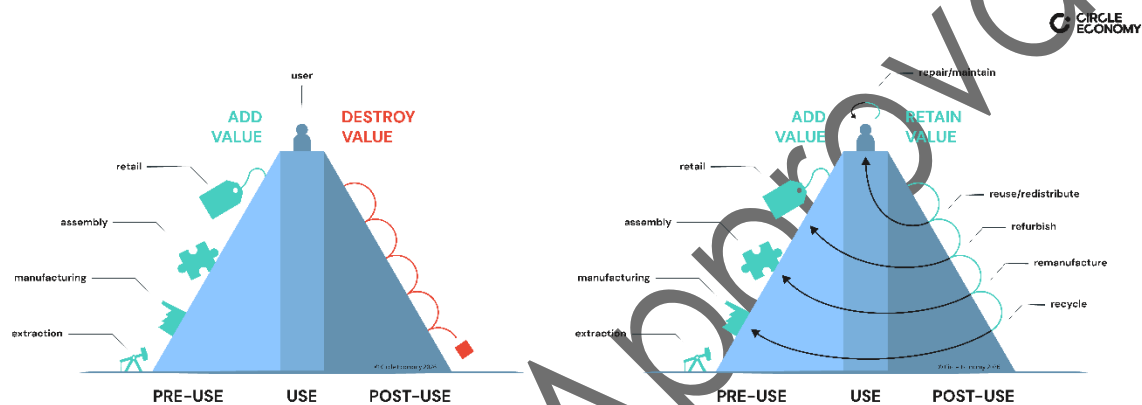


FIGURE 1: THE VALUE HILL

From a cost perspective, many circular models leverage waste as an underutilised and often low-cost input. Where technology and supply allow, recovering materials or components from end-of-use products can be cheaper than sourcing virgin alternatives. Instead of continuously purchasing new inputs, businesses can reprocess, reuse, or remanufacture existing materials. In principle, this shifts the cost base away from extractive inputs and towards value recovery, improving efficiency over time.

From a revenue perspective, improving the circularity of products and materials creates multiple points at which value capture can be further monetised. These can include repair, refurbishment, resale, or service-based models that extend product use. Rather than a single transaction at the point of sale, value can be captured repeatedly across a product's lifecycle. This expands the revenue logic of traditional purchase-based models, both in terms of duration and the number of customer interactions, providing more opportunities for revenue generation and the implementation of entirely new business models.

From a risk perspective, circular models provide resilience to both physical and transition risks.

- Physical risk relates to disruptions in the availability and cost of resources, driven by factors such as geopolitical instability, supply chain concentration, or

environmental pressures. Businesses that are less reliant on virgin material inputs, fossil fuels, or long and complex global supply chains are, in principle, less exposed to these shocks. By operating with secondary materials or within more localised and controlled loops, circular models can reduce vulnerability to input scarcity and price volatility.

- Transition risk, by contrast, relates to changes in the regulatory, policy, and market environment as economies respond to climate, nature, and resource constraints. This includes the introduction of measures such as Extended Producer Responsibility schemes, recycled content mandates, or product design requirements. Businesses that are already structured around resource efficiency, reuse, and recovery are more naturally aligned with these developments. As a result, they are likely to face fewer adjustment costs and less disruption as these policies take effect, while linear models may encounter increasing constraints.

Patterns in circular economy investment

What we see in reality, however, is quite different. Despite the logical business case, tracked capital flows into the circular economy are both limited in scale and unevenly distributed. The Circularity Gap Report Finance shows that, over the period 2018–2023, commercial investment in businesses engaging with the circular economy averaged approximately US\$27 billion per year – representing just 2% of total tracked investment. This indicates that the overwhelming majority of capital continues to flow into linear, resource-intensive industries, reinforcing existing economic structures and their associated risks.

Beyond overall volumes, the distribution of investment reveals a deeper structural imbalance. Capital is heavily concentrated in relatively conventional and mature applications of circularity, such as vehicle repair, second-hand markets for electrical goods, and organic waste recovery. These models accounted for the largest share of investment, while design and production activities – the areas with the highest potential to drive systemic change – received just 4.7% of total funding. Prominent research into the investment patterns in the circular economy all converge on a picture of over-allocation of capital to incremental improvements, with persistent gaps in higher-value and more transformative segments of the circular economy.

Challenges with investing in the circular economy in practice

The current makeup of circular economy investment is not incidental; it reflects the reality of a set of structural challenges that shape how circular economy investment opportunities are interpreted, assessed and financed in practice. These challenges

can broadly be grouped into three areas: business model challenges, market challenges, and wider economic distortions.

1. Business model challenges: Misalignment with mainstream financial assessment methodologies

- **Revenue profiles do not align with standard expectations:** Circular models often generate value over time – through extended use, service provision, or repeated value capture – rather than through upfront transactions. Financial markets, however, are structured around short-term cash flow visibility and repayment capacity. As a result, business models that are economically sound over the lifecycle can appear weaker when assessed through conventional metrics. This reflects a broader bias within financial systems toward immediacy and liquidity, rather than durability and value retention.
- **Asset ownership and capital intensity are penalised:** Many circular models retain ownership of products or assets in order to capture residual value. While this is central to the logic of circularity, it increases balance sheet intensity and can be interpreted as higher risk under traditional financial ratios. Banking models in particular tend to favour clear collateral structures and predictable repayment profiles, meaning that circular models can be disadvantaged despite offering more controlled and potentially lower-risk value chains over time.
- **Scalability concerns and the 'valley of death':** While very early-stage circular ventures benefit from relatively prominent grant and angel funding and successful circular businesses have been proven to be bankable, a pronounced 'valley of death' indicates that venture capital fails to see the scaling potential of circular models relative to other forms of innovation. This is particularly relevant for business model innovation, which tends to be relatively asset-heavy and therefore unlikely to scale rapidly by orders of magnitude. The other prominent form of innovation in the circular economy is material innovation, where novel materials are developed from secondary or bio-based inputs to substitute virgin incumbents. This type of innovation often involves long R&D timelines and approval processes, which can impact scalability estimations.

2. Market challenges: Coordination failures and missing material markets

Even where business models are viable, the markets they depend on are often nascent or ineffective.

- **Niche and nascent secondary material markets:** Markets for secondary materials are often fragmented, low-volume, and inconsistent in quality. Many

circular economy models rely on inputs of niche secondary or bio-based materials, which can lead to monopolistic competition in supply or demand, as well as logistical challenges resulting from geographic misalignment. Even where a technology is mature and a market clear and captured, the inability to access reliable input streams can hinder operational viability and thus investment case.

- **Reverse logistics introduces additional cost and complexity:** Circular models require materials to flow backwards through the value chain, supported by collection, sorting, and verification systems. These processes are inherently more complex than linear supply chains and are rarely supported by existing infrastructure. This creates higher transaction costs and operational burdens, particularly in early-stage markets where scale has not yet been achieved.
- **Interdependence of systemic circular economy solutions:** Circularity cannot be achieved in isolation and depends on a multitude of actors across the value chain to collaborate. These actors are often disconnected, each having their own incentives and limited mechanisms to share the benefits of circular value capture. This creates a tension with system-level circular economy transformation, as most investment decisions are made and deployed at the firm-level: investors assess standalone business performance, risk, and returns, rather than the viability of the wider system in which that business operates. As a result, even where a circular model is viable in principle, it may struggle to demonstrate a sufficiently robust investment case in isolation. Capital therefore tends to favour business models that can operate independently of broader system change, limiting the ability to finance and deliver more transformative, system-dependent circular solutions.

3. Economic challenges: Distorted incentives and price signals

Circular business models operate within an economic system that continues to favour linear production and consumption.

- **Negative externalities are largely unpriced:** The full social and environmental costs associated with resource extraction, ecosystem degradation, and waste generation are not fully reflected in market prices. Compounding this, many linear activities are in fact subsidised, which allows them to appear artificially efficient, while circular alternatives must compete without these structural advantages. In effect, circular businesses are required to outperform on commercial terms in a system that does not recognise the full cost of linearity, and in many cases supports it.
- **Capital allocation reinforces existing systems:** Financial markets follow price signals and therefore tend to allocate capital toward established industries, proven track records and prominent business models. This reinforces linear production systems in which value is generated through volume and turnover

rather than retention. Circular models, which often aim to reduce material throughput, can therefore sit in tension with prevailing growth and return expectations.

- **Policy signals are uneven and insufficient:** While there are clear developments in certain regions, policy support for circularity remains inconsistent globally. This creates uncertainty for investors and limits the development of stable demand signals. Where policy does intervene, it often supports incremental improvements rather than systemic shifts.
- **Resource risk remains unintegrated in finance:** Despite growing exposure to resource scarcity, price volatility, and supply chain disruption, these risks are not yet systematically incorporated into financial decision-making. This limits the extent to which circular models are recognised as a risk mitigation strategy, and therefore contributes to their undervaluation in investment processes.

In summary, while the underlying logic of the circular business case is clear, these opportunities tend to only be realised when they are supported by enabling economic conditions, functioning material markets, and alignment with dominant financial logics. In reality, this means a large number of transformative circular economy initiatives go unfunded.

Overcoming these challenges will require action from an array of stakeholders. Most importantly, the onus is on policymakers to level the economic playing field and address market coordination failures where possible. This is not to say that micro-level actors cannot themselves take action to realise this potential.

As the *Step-by-step Investment Readiness Guide* outlines for entrepreneurs and circular economy project developers, there are also concrete steps they can themselves take to support their capital raising ambitions. This guide covers the immediate actions that the financial sector can take to better recognise and leverage the multi-faceted opportunity the circular economy provides.

What constitutes a circular economy investment in practice

The circular economy itself is subject to a wide range of definitions, interpretations, and frameworks, reflecting its application across different sectors, geographies, and policy contexts. While this plurality has been useful in expanding the concept, definitional ambiguity has consistently been cited as a barrier to its uptake within financial markets, where clarity and comparability are paramount. In particular, the lack of a common understanding of what constitutes a 'circular' activity has slowed the development of investment pipelines, complicated due diligence processes and limited the ability to track and scale capital flows. In this context, recent efforts to develop more harmonised classification systems and financing guidelines play an

important role in translating the concept of circularity into something that can be consistently identified, assessed, and financed.

At the European level, the Categorisation System for the Circular Economy was the first initiative of its kind and remains the foundational structure for ongoing efforts. It was developed to create a common, sector-agnostic definition of circular activities, explicitly to support financing, risk assessment, and comparability across markets. The system organises circular activities along the value chain and aligns them with the Value Hill framework, distinguishing between design and production, use, and value recovery.

Building on this, the Harmonized Circular Economy Finance Guidelines developed by the International Finance Corporation (IFC) translate this structure into financial practice. They provide more detailed guidance on which activities, projects, and assets can be considered eligible for circular economy finance, and how these can be identified within portfolios or structured into investments. The IFC guidelines retain the value chain logic but simplify and operationalise it into a smaller set of core categories, while also introducing eligibility principles such as substantial contribution and 'do no significant harm'.

Most recently, the Circular Economy Finance Guidelines developed by the Kopgroep Circulair Financieren (KCF) provides a practical framework for financial institutions. These guidelines focus on practical implementation, including a decision tree to support classification and a set of edge cases that reflect the complexity of real-world activities. They are particularly useful in translating high-level definitions into day-to-day financing decisions, including how to deal with partial eligibility and mixed business models.

Taken together, these frameworks converge around a common principle: **circular economy investments are those that contribute to retaining value in products and materials across the value chain, rather than allowing that value to be lost.**

For a more extensive overview of actual classifications of circular economy activities as investments, please see the previously developed guide in this series, the [Step-by-Step Investment Readiness Guide](#). The categories and definitions detailed there are based on the frameworks outlined above and are supplemented with investment data from research presented in the Circularity Gap Report Finance.

Part II - Leveraging the circular economy as an investment opportunity



Value — Understanding and appraising value in the circular economy

Financial value is typically assessed through a combination of revenue growth, margins, and the timing and predictability of cash flows. In traditional finance and accounting, value is largely realised at the point of sale, with financial performance measured through relatively short-term indicators and supported by established accounting and reporting standards. This approach works well for linear models, where products are sold, ownership is transferred, and value is captured in a single transaction.

In many circular models, especially those in the Use phase, value is created by retaining products and materials in use and capturing that value multiple times across the lifecycle, rather than realising it upfront. This affects not only how much value is generated, but also when and where it appears in financial terms. Revenues become more distributed, costs are restructured, and significant portions of value – such as residual materials or extended product use – may sit outside conventional financial metrics. As a result, circular business models can appear less attractive when assessed through standard approaches, even when their underlying economics are strong.

The implication for investors is not that circular models generate less value, but that value must be interpreted differently. The task is to move from a point-in-time view of value to a lifecycle-based perspective, while using familiar financial tools in ways that reflect the structure of circular models.

1.1. Look beyond the sale: Alternative forms of value in the circular economy

In many **Circular Use** models, particularly Product-as-a-Service (PaaS), leasing, subscription, and performance-based models, the customer pays for access to a product rather than ownership of it. This shifts income generation from a one-off sale to recurring fees, creating quite a different revenue profile. While the total lifetime value of the product may be higher, cash flows are slower and more distributed over time. This can weaken short-term profitability, lengthen payback periods, and perhaps most critically, increase the need for working capital in the immediate term.

For investors, the implication is that the assessment should focus less on immediate sales conversion and more on the **quality and durability of future cash flows**. That means looking carefully at contract duration, renewal rates, default rates, customer retention and churn. In business-to-business or business-to-government models, long-term signed contracts with creditworthy customers may provide a stronger basis for financing than in business-to-consumer models, where customers are more dispersed and harder to assess.

Future revenues should not be discounted simply because they are delayed; they should be assessed through discounted cash flow or net present value (NPV) approaches that reflect the full earning period of the asset. Where contracts are strong, diversified, and enforceable, they can support a shift from purely asset-based lending toward cash-flow and contract-based financing, and should be considered as a form of collateral and securitised accordingly.

The case of Bicycle-as-a-Service provider [Swapfiets](#) illustrates how strong underlying economics can be undervalued under conventional financial appraisal, and how the development of an NPV accounting model helped better reflect its financial performance.

1.2. Develop alternative lending structures better suited to service models

A second major feature of **Circular Use** models is retained ownership. In a linear model, the product is sold and leaves the balance sheet. In a circular model, the provider often retains ownership to enable maintenance, repair, reuse, refurbishment, and end-of-use recovery. This is central to the logic of circularity, because it gives the provider a direct financial incentive to design durable products and maintain them well. Again, the Swapfiets case is relevant here: PaaS allows the supplier to retain ownership and oversight of the product's materials, making it possible to reuse and refurbish parts that remain in working condition.

However, retained ownership also increases the size of the balance sheet, as assets remain on the company's books and must often be financed upfront for each new customer. This can weaken solvency ratios, increase capital demand, and make growth look more financially strained than it actually is. Balance sheet growth negatively affects solvability and asks whether financiers should apply different thresholds for PaaS providers or consider leasing as an alternative.

For investors, balance sheet growth should not automatically be interpreted as increased risk. It may indicate that the company is building an income-generating asset base. The relevant question is whether those assets are deployed, contracted, maintained, and capable of generating revenue over multiple cycles.

Several practical financing responses can address this. One is to use leasing structures, in which the financier owns the asset and leases it to the PaaS supplier. This can reduce

the upfront capital burden on the company while still enabling the model to function. In the Swapfiets example, a financier purchased the fleet of bikes, holds the assets on its own balance sheet, and leases them to Swapfiets, while Swapfiets receives monthly payments from users.

Similarly, financing approaches that focus only on assets already 'in use' and actively generating cash flow should be considered. Financing assets deployed with customers can help reduce overall financing costs, potentially through a separate entity that holds those assets. This approach is important because it links financing directly to revenue-generating capacity, rather than treating the full asset base as an undifferentiated capital burden.

1.3. Don't assume that assets depreciate in a linear fashion

In finance, depreciation is usually treated as a relatively straightforward steady decline in asset value over time, often modelled through linear depreciation. In circular models that actively maintain, repair, upgrade, and refurbish assets, however, value does not necessarily decline in a straight line, and this assumption may not hold.

One of the clearest lessons from the Swapfiets case was that the assumption of linear depreciation restricted the funding conditions available for the business because it overlooked the value added through regular maintenance, repair, and replacement of parts. As a result, the residual value of the asset – that is, its value at the end of the financing arrangement – was underestimated. This assumption makes PaaS businesses appear riskier than they actually are and worsen available financing conditions.

For investors, the implication is that standard depreciation assumptions should be challenged where the business model actively preserves asset value. A circular asset should be assessed not only on age, but on condition, maintenance history, modularity, repairability, recoverability, and the existence of reuse or resale channels.

The practical solution is to model **actual value**, rather than assumed linear decline. This again can be done through NPV modelling that incorporates internal factors such as net revenue, repair costs, lease costs, customer service, missing assets, transport, storage, tax, and other operating costs. Scenario analysis that incorporates external factors such as carbon pricing, circular subsidies, customer preferences, technology change, certifications, material scarcity, and extreme weather can further strengthen valuation. Pilot projects can also be significant tools for testing and defending claims of more accurate depreciation assumptions.

Using more novel and nuanced accounting approaches makes valuation more realistic, but it also gives financiers a better basis for structuring terms, allowing them to distinguish between an asset that is merely ageing and an asset whose value is actively maintained.

1.4. Recognise residual value of assets to improve the investment case

In **Value Recovery** models, and in many Circular Use models, value does not end after first use. Products, components, and materials can be recovered, reused, remanufactured, resold, or recycled. Circular accounting therefore argues for replacing the language of 'waste' with 'residual resources', as the term waste itself discourages recognition of hidden value.

The difficulty is that residual value is often hard to price. Markets for reused components or secondary materials may be immature, historical data may be limited, and quality may vary. This traditionally makes financiers cautious, especially where the asset has low unit value or is costly to retrieve. Low-value consumer assets can be especially difficult to incorporate into leasing structures because the avenues and markets don't yet exist as scale to valorise the materials for further use.

For investors, the implication is that residual value should not simply be excluded because it is uncertain. Instead, it should be treated as a specific appraisal question: what is the expected value after first use, what determines that value, and what systems are in place to realise it?

The practical assessment should look at whether the product is durable, modular, standardised, movable, easy to disassemble, and supported by take-back systems or refurbishment partners. Residual value also dependent on the existence of take-back schemes, value chain collaboration for refurbishment, and active second-hand markets. Where residual value is not yet sufficiently certain to book directly, residual resources can be treated as contingent assets, whose potential economic benefit depends on future events not fully controlled by the company. While imperfect, this approach can help improve the investment case where the expected value is higher than current market pricing reflects.

1.5. Explore systemic funding approaches

In the vast majority of cases, not all value is created within the individual company receiving finance. Many circular business models depend on the alignment of several actors in the value chain: designers, manufacturers, service providers, logistics firms, refurbishers, recyclers, and offtakers.

This is especially relevant in models that depend on take-back, refurbishment, remanufacturing, or secondary material use. Delivering a truly circular product requires multiple circular business models across the value chain to function in concert, enabling assets and materials to flow through multiple cycles. Collaboration between service providers, producers, product designers, and manufacturers is therefore often essential.

For investors, the implication is that firm-level appraisal is sometimes insufficient. A business may look weak in isolation because the enabling system around it is still underdeveloped. Conversely, it may become much more attractive if it has secured the right partnerships, return flows, offtake agreements, or supplier commitments.

The practical solution is to assess the **ecosystem around the business model**. This includes asking whether the firm has agreements with suppliers to take back products or components, whether there are repair or refurbishment partners in place, whether recovered materials have offtake, and whether risks and benefits are shared across the value chain. In many cases, investors themselves are uniquely well-positioned to play the important role of a 'chain coordinator,' coordinating relationships, risk-sharing, and shared investment across several actors in the value chain, rather than funding the firm as if it were fully standalone.

In summary

For investors looking to leverage the opportunities presented by the circular economy, it is imperative to ensure that reliance on traditional finance and accounting methodologies does not serve to undervalue the prospective investment and its commercial viability. While many of these issues are accounting challenges to be addressed by businesses themselves, financiers are often far better placed to assess, appraise and structure circular economy deals by taking the following measures into account:

- **Value the lifecycle, not the transaction:** Use NPV and discounted cash flow to capture recurring revenues and residual value over multiple use cycles.
- **Focus on contracts, not just sales:** Treat long-term service contracts and customer quality as core indicators of cash flow security.
- **Align finance with cash flow timing:** Structure tenors and repayments around delayed, recurring revenues.
- **Don't penalise retained ownership:** Use leasing or special purpose vehicles where needed, and assess assets based on income generation, not just balance sheet impact.
- **Recognise residual value explicitly:** Move beyond linear depreciation and allow accounting for reuse, refurbishment, and recovery.
- **Broaden what counts as collateral:** Include contracts, receivables, and commercial relationships, not just physical assets.
- **Look beyond the firm where needed:** Consider funding and overseeing risk-sharing at the value chain level, rather than focusing solely on individual firms

Relevant case studies, resources and links

1. [Depreciating 'Circularly' in Leeuwarden](#)
2. [Valorising residual resources](#)
3. [Balance sheet implications of retained asset ownership and how to address it](#)

2

Risk — Understanding and assessing circular risk

In the financial sector, particularly in banking, novelty represents risk. Many circular business models, especially the most transformative, are novel and do not yet possess sufficiently demonstrable track records to alleviate concerns about the associated risks. In reality, whether these models introduce or reduce risk depends on the specifics of the model and the context in which it is applied. What can be said for certain is that they do quite fundamentally change where risk sits and, consequently, how it should be assessed.

In conventional finance, risk assessment focuses on creditworthiness, market exposure, and operational performance, typically drawing on historical data and relatively stable assumptions about inputs and supply chains. More recently, prudential regulation in many regions has required the inclusion of non-financial risks in financial risk assessments, primarily covering the physical and transitional risks relating to climate change. A prominent example is the double materiality assessment required for European businesses within the scope of the Corporate Sustainability Reporting Directive (CSRD). The associated European Sustainability Reporting Standards (ESRS) require in-scope companies to consider not just the impact that environmental and societal risks have on the business, but also how business operations impact environmental and social systems.

Despite marked improvements, financial risk assessment often overlooks a critical dimension: exposure to resource-related risks embedded in linear economic models. A growing body of research highlights that businesses operating under a take-make-waste logic are exposed to material price volatility, supply chain disruption, and resource scarcity, yet these risks are not systematically incorporated into financial risk assessments.

At the same time, circular business models – while often more resilient to these risks – are frequently assessed as higher risk. This creates a structural misalignment that directly contributes to the current makeup of capital flows in the circular economy: the risks associated with linear business models are underestimated, while those relating to circular models are overstated.

For investors, the task is therefore to reassess both sides of this equation: to better recognise linear risk and to more accurately interpret the risk profile of circular business models.

2.1. Understand and assess exposure to resource risk of linear models

In conventional finance, material inputs are typically treated as stable cost components. As a result, exposure to resource scarcity, supply chain concentration, and input price volatility is rarely assessed as a core financial risk. In practice, businesses dependent on virgin materials and globalised supply chains are increasingly exposed to price shocks, supply disruption, and regulatory pressure, particularly as environmental constraints and geopolitical factors intensify. The Linear Risk framework highlights that these exposures are 'mostly overlooked and missing in traditional risk evaluation approaches', despite their growing materiality. Circular models directly address this exposure by reducing reliance on virgin inputs, extending material use, and often localising or shortening supply chains. This can significantly reduce vulnerability to external shocks and improve operational resilience.

The connection between resource risk and financial stability remains underappreciated. To address this gap, financial institutions should update their risk assessment frameworks and reporting practices to fully capture exposure to resource-related risks, independently of climate risk.

From a reporting perspective, this should begin with tracking and disclosing portfolio exposure to resource-intensive and resource-dependent business models using materiality thresholds, dependency ratios, or circularity indicators. This will help build a common language and comparable data across the sector. Initiatives such as Kopgroep Circulaire Financiering and its [Circular Risk Scorecard](#) provide early models for translating resource risk into decision-relevant metrics.

From a risk accounting perspective, resource risk should be recognised as a standalone category in internal risk models, integrated alongside credit, transition, and physical climate risks. By embedding a resource risk and circular economy lens into due diligence, scenario analysis, and capital allocation decisions, financial institutions can strengthen portfolio resilience and identify new transition opportunities.

In practice, this includes:

1) Supply chain concentration:

- 'What percentage of critical (raw material) inputs comes from a single country or supplier, and could that supply be replaced within x months if disrupted?'

2) Import dependency:

- 'What share of key materials is imported versus locally sourced, and how exposed is the project to tariffs, trade restrictions, or border delays?'

3) Resource intensity and substitution risk:

- 'How many kilograms of material are required per unit of output, and is there a realistic pathway to substitute with fewer inputs within the project lifecycle?'

4) Secondary market and recovery potential:

- 'Is there a functioning resale/refurbishment or recycling market for the product?'

5) Compliance:

- 'What are the expected compliance-related costs related to resource use/depletion?'

Understanding and appreciating the extent of resource-related risks and the significant impact they could increasingly play on portfolios shifts resource considerations from a secondary ESG issue to a primary financial risk variable and should be addressed accordingly.

2.2. Improve risk assessment of circular model-specific risks

While circular business models can reduce exposure to resource-related and transition risks, they are often perceived as higher risk in practice. This reflects a misalignment between how risk is conventionally evaluated and how circular business models actually operate.

Traditional credit and investment assessment frameworks are largely designed around linear business models. They assume upfront sales, short and predictable cash flow cycles, limited balance sheet exposure, and relatively straightforward supply chains. Circular models frequently diverge from these assumptions. Revenues may be generated over longer periods, ownership of assets may be retained, and value creation may depend on coordination across multiple actors in the value chain. As a result, business models that are economically resilient over their lifecycle can appear financially weaker when assessed using conventional methodologies.

The Circular Risk Scorecard, developed through Kopgroep Circulaire Financiering, was designed specifically to address this gap. It argues that financial institutions systematically underestimate the risks embedded in linear business models because existing assessment models implicitly assume unlimited resource availability and stable linear value chains. Rather than treating circularity as a standalone sustainability consideration, the Scorecard proposes assessing circular and linear risks simultaneously.

This distinction is important as it typically changes the risk profile. In many cases, circular models reduce exposure to:

- Resource scarcity and input price volatility;
- Supply chain disruption and geopolitical concentration;
- Future regulatory and transition-related costs;
- Stranded asset risk associated with linear production systems.

At the same time, they may introduce or increase exposure to:

- Operational complexity;
- Reliance on return flows and reverse logistics;
- Dependence on partners across the value chain;
- Immature secondary material markets;
- Uncertainty around residual value and asset recovery.

For investors, the implication is not that circular models should automatically be considered lower risk, but that risks should be interpreted differently and assessed more holistically. In practice, this means moving beyond standardised credit outputs and interrogating the assumptions sitting underneath them. Particular attention should be paid to:

- Whether weaker short-term cash flows are the result of delayed but contracted lifecycle revenues;
- whether higher balance sheet intensity reflects retained ownership of income-generating assets;
- whether operational complexity is offset by reduced dependency on volatile resource markets;
- and whether the business model improves resilience to future regulatory or supply-side disruption.

The Circular Risk Scorecard provides a practical starting point for this process. Rather than relying solely on conventional financial indicators, it incorporates factors such as material dependency, circular revenue structures, asset recoverability, repairability, reuse potential, and exposure to virgin resource markets. This helps distinguish between genuine underlying risk and distortions created by applying linear assumptions to circular models.

Ultimately, improved risk assessment requires recognising that many circular business models are not speculative alternatives to stable linear systems, but responses to the growing instability and resource exposure embedded within those systems themselves.

2.3. Distinguish real risk from methodological bias

Many of the risks associated with circular business models are not inherent to the model itself. They can be significantly reduced through financial structuring, contractual arrangements, and coordination across the value chain.

This is particularly important because circular business models are often system-dependent. Their success may depend on a stable supply of recovered materials, reliable customer returns, functioning reverse logistics systems, or consistent demand

for recovered outputs. In many cases, no single actor can control these conditions independently.

As discussed in the previous section, this creates a tension between the system-level nature of circular value creation and the firm-level nature of most investment decisions. Increasingly, however, investors and financial institutions can manage material flow risks through legal obligations around demand and supply. One important mechanism is the use of contractual arrangements to reduce uncertainty across the chain. Offtake agreements can secure future demand for recovered materials or refurbished products, improving revenue visibility; supplier buyback agreements can strengthen assumptions around residual value and material recovery; and feedstock contracts provide a contractual guarantee of access to often-niche or hard-to-access secondary material feedstock for recycling.

Beyond contractual structures, some investors are beginning to adopt a broader value-chain financing approach. Rather than financing individual firms in isolation, they coordinate investment across multiple actors involved in delivering circular outcomes. This may include financing combinations of manufacturers, logistics providers, refurbishment actors, recyclers, and material processors simultaneously.

The rationale is that many circular risks arise when one part of the system develops faster than another. A recycler without reliable feedstock remains risky; a product-as-a-service provider without recovery infrastructure remains risky; a manufacturer using secondary materials without long-term supply certainty remains risky. Coordinated financing can reduce these interdependencies by supporting the enabling conditions required for circular models to function effectively.

This shifts the role of finance beyond passive capital allocation toward a more active role in market formation and value chain coordination. In some cases, financiers are effectively acting as ecosystem orchestrators, helping align incentives, secure flows of materials and products, and reduce uncertainty across the chain as a whole.

For investors, the practical implication is that circular risk should not be avoided simply because coordination challenges exist. Instead, risk should be actively managed through more considered contract structures, partnership assessments, feedstock and offtake coordination, novel risk-sharing/co-financing approaches, and value chain-level analysis rather than purely firm-level assessment.

Well-structured circular systems can therefore become substantially more resilient and investable than isolated analysis of individual firms might initially suggest.

In summary

For investors looking to assess and manage risk effectively in the circular economy, it is essential that conventional financial risk methodologies do not systematically

underestimate linear risk while overstating the risks associated with circular business models. Circularity changes where risk sits, how it materialises, and how it can be mitigated. Financial institutions are therefore better placed to identify resilient opportunities and structure robust investments by taking into account the following measures:

- **Recognise resource risk as a core financial risk variable:** Assess dependency on virgin materials, supply chain concentration, resource price volatility, and exposure to future resource-related regulation.
- **Assess circular and linear risks simultaneously:** Evaluate not only the operational risks introduced by circular models, but also the systemic risks embedded within linear ones.
- **Distinguish between genuine risk and methodological bias:** Challenge conventional credit outputs where business models diverge from linear assumptions around ownership, cash flow timing, and value capture.
- **Recognise circularity as a form of risk mitigation:** Account for the resilience benefits associated with reduced resource dependency, diversified revenues, and alignment with regulatory direction.
- **Assess system dependencies, not just firm performance:** Evaluate reverse logistics systems, return flows, secondary markets, and the strength of value chain partnerships surrounding the business model.
- **Use contracts to reduce uncertainty:** Strengthen risk visibility through offtake agreements, buy-back arrangements, long-term service contracts, and take-back agreements.
- **Coordinate finance across the value chain where needed:** In system-dependent models, consider co-financing, supply chain finance, and ecosystem-level investment approaches to reduce coordination risk.
- **Treat circular risk as something to structure and manage:** Many risks associated with circular models can be materially reduced through contractual design, partnership alignment, and appropriate financing structures.

Relevant case studies, resources and links

1. [Circular Risk Scorecard](#)
2. [Circularity Gap Report Finance](#)

3

Impact — Measuring and monitoring the impact of circular economy investment

Though typically less central than value and risk, impact remains an important component of the investment case for the circular economy for many investors and a primary consideration for some. Circular business models can create value not only through revenue generation or risk reduction, but also by reducing pressure on natural resources, limiting waste generation and its associated pollution, lowering emissions, improving material security, and in some cases, supporting more local, inclusive and resilient economic activity.

However, the impact of circular economy investments is not always straightforward to assess. Circularity is often treated as an impact in itself, when it is better understood as a mechanism through which impact may be generated. A business may use secondary materials, extend product lifetimes, recover waste, or offer a product-as-a-service model, but the sustainability outcomes of these activities still depend on what they displace, how they are delivered, and whether they reduce overall resource use and associated environmental and social harms without causing detrimental rebound effects.

This distinction is particularly important for investors, especially for those like VCs where coming regulation is pushing them to consider more effective determinations of impact. If circularity is assumed rather than measured, it becomes difficult to distinguish between business models that genuinely reduce linear resource use and those that merely shift impacts elsewhere in the value chain. The task is therefore not simply to verify whether an activity is circular, but to understand whether and how that activity generates measurable impact compared with a credible linear alternative.

In practical terms, this means investors should be able to answer four questions:

- What circular activity is being financed?
- What direct circular outputs does it generate?
- What wider environmental, social or economic outcomes result from those outputs?
- What evidence demonstrates that these outcomes are additional to what would have occurred otherwise?

3.1. Determine relevant impact outcomes

The first challenge is that circular economy impact is often expressed at the level of the activity, rather than the outcome. A project may be described as circular because it recycles materials, uses bio-based inputs, enables reuse, or extends product life. While these are all relevant circular strategies, they do not automatically demonstrate impact.

For example, recycling may reduce the need for virgin material extraction, but this depends on the quality of the recovered material, the energy intensity of the recycling process, whether the recycled material actually displaces virgin material, and whether the recovered material is used in an equivalent application or downcycled into lower-value uses. Similarly, a bio-based material may reduce dependence on fossil inputs, but could create land-use, water-use, biodiversity or food-system pressures if not assessed carefully. A sharing model may increase product utilisation, but if it stimulates additional consumption or requires a larger supporting asset base, the net impact may be less clear.

For investors, this implies that circular impact should not be inferred solely from the circularity label. It should be traced through a clear impact pathway. The circular activity is the starting point, but investors should also understand the material flow affected, the linear activity displaced, the environmental or social outcome generated, and the assumptions used to make that claim.

The *Global Circularity Protocol for Business (GCP)* is currently the most comprehensive reference point for this type of assessment. It provides a structured approach to measuring, managing and communicating circular performance, beginning with the definition of objectives, boundaries and material flows before moving into indicators, management and disclosure. It is particularly useful because it treats circularity not as a standalone label, but as a performance question connected to climate, nature, social and financial outcomes.

3.2. Define the assessment level

Before selecting metrics, investors should define where impact is expected to occur. This is especially important in the circular economy because value and impact often span product lifecycles and value chains, rather than being confined to the financed company alone. Again, the GCP provides the best practice here.

Material and resource level:

- At the most granular level, impact can be assessed for a specific material or resource flow. This is particularly relevant where investments aim to reduce dependence on virgin materials, increase the use of secondary materials, improve resource productivity, or recover critical materials. Examples might include investments in plastics recycling, textile fibre recovery, battery materials, or construction materials.

- At this level, the key questions relate to the quantity, quality, and circulation of materials. Investors may seek to understand how much virgin material use is avoided, how much secondary material is introduced, or how effectively materials are retained within the economy over time.

Product, service, and activity level:

- Impact may also be assessed at the level of a specific product, service, or activity. This includes investments in durable products, reusable packaging systems, product-as-a-service models, repair and refurbishment services, remanufacturing facilities, recycling infrastructure, or take-back schemes.
- At this level, the focus shifts from individual materials to the performance of the intervention itself. Investors may assess whether products remain in use for longer, whether reuse or repair rates increase, whether waste generation is reduced, or whether products and materials are successfully recovered at end-of-use. The central question is whether the circular intervention delivers measurable improvements compared to the linear alternative it seeks to replace.

Organisation and business-unit level:

- At the broadest operational level, impact can be assessed across an organisation or a specific business unit. This is particularly relevant for investments in companies whose business models are built on circular economy principles, including resale, sharing, repair, refurbishment, remanufacturing, secondary materials, and product-as-a-service.
- At this level, impact is closely linked to the commercial model itself. Investors may assess indicators such as circular revenue share, material productivity, utilisation rates, product lifetime extension, repair rates, return rates, or the proportion of secondary materials used. These metrics often provide insight into both impact performance and long-term business resilience.
- For diversified organisations, assessing at the business-unit level may be more meaningful than assessing the company as a whole, allowing investors to focus on the activities most directly linked to circular outcomes.

Organisation and business-unit level:

- While not formally included within the GCP assessment hierarchy, investors may also wish to assess impact at the portfolio level. This is particularly relevant for impact investors, banks, development finance institutions, and funds building dedicated circular economy allocations.

- At this level, the focus is on aggregation. Rather than assessing individual interventions, investors seek to understand how investments collectively contribute to reduced virgin resource use, increased circular activity, improved resource productivity, or broader transition objectives. Portfolio-level assessment is also important for target-setting, reporting, and demonstrating alignment with circular economy strategies or investment mandates.

The key principle is that impact assessment should begin by defining the level at which impact is expected to occur. Selecting indicators before establishing the assessment level can lead to incomplete or misleading conclusions. Product-level metrics cannot capture organisation-wide effects, while company-level metrics may obscure dependencies elsewhere in the value chain. Similarly, portfolio-level metrics can conceal whether impact is concentrated in a small number of investments or distributed across the portfolio. The GCP provides a useful framework for avoiding these pitfalls. It encourages users to first define the use case, assessment level, organisational boundaries, value chain scope, and priority material flows before selecting indicators and commencing measurement.

The Corporate Sustainability Reporting Directive (CSRD)'s ESRS E5 follows the same logic in reporting terms. It requires companies to disclose the methodologies, assumptions and tools used to identify actual and potential resource-use and circular economy impacts, risks and opportunities across their own operations as well as their upstream and downstream value chain. Companies must also identify the business units, material resources, and value chain stages where impacts, risks and negative effects are concentrated.

For investors, this information can help answer an important due diligence question: Does the company understand where its circular economy impacts and dependencies actually occur?

3.3. Map circular activities to impact pathways

Once the scope of the impact assessment has been defined, investors should map the pathway through which circular economy activities are expected to generate real-world outcomes. This can be understood through a simple sequence:

Circular activity → circular output → outcome → impact

Some illustrative examples include:

- A design-for-durability intervention may lead to a longer expected product lifetime. The outcome is reduced replacement demand. The wider impact may be avoided through virgin material extraction, avoided production emissions and lower waste generation. But this impact depends on whether customers

keep the product in use longer, whether repair services are available, and whether lower replacement demand reduces total production.

- A Product-as-a-Service model may increase utilisation and retain ownership with the provider. The outcome may be more service delivered from fewer assets. The wider impact may be reduced material throughput and stronger incentives for durability and repair. But this depends on the size of the asset pool, the intensity of use, maintenance performance, product losses, and whether access-based consumption displaces or adds to ownership-based consumption.
- A recycling or recovery model may divert waste from disposal and produce secondary feedstock. The outcome may be greater availability of secondary materials. The wider impact may be reduced landfill, incineration and virgin extraction. But this depends on recovery yield, quality, contamination, energy use, and whether the recovered material can substitute virgin material in practice.

For investors, impact appraisal should be structured around causality. The question is not only what a company does, but what changes as a result.

The UNEP-FI guidance for banks is useful here because it sets out a common pathway to impact, linking financial-sector actions to outputs, outcomes and environmental and social impacts. While designed for banks and impact target-setting, the underlying logic is relevant to all investors: impact depends on the connection between practice, financed activity and real-world change.

ESRS E5 also provides a practical, reporting-aligned lens through which to assess this connection. Its action-related disclosure requirements ask companies to describe measures such as resource efficiency, increased use of secondary raw materials, circular design, circular business practices, waste prevention, waste management optimisation, and collective action with other stakeholders. These actions are not impact outcomes in themselves, but they help identify the mechanisms through which impact is expected to occur.

For investors, these actions represent the first step in the impact pathway. The next step is to test whether they lead to measurable outputs and outcomes.

3.4. Choose indicators that capture circular performance and wider outcomes

Circular economy impact measurement requires more than a single indicator type. Investors should avoid relying on a single headline metric unless the impact claim is very narrow. In most cases, indicators are needed across three levels: circular performance, environmental outcomes, and social or economic outcomes.

Circular performance indicators

Circular performance indicators show whether the business model is actually retaining value in products and materials. These are closest to the circular activity itself and are often the most relevant indicators for investors' due diligence.

Relevant indicators may include:

- total material use;
- share of secondary, reused or recycled input;
- share of sustainably sourced biological material;
- product durability;
- product reparability;
- recyclable content;
- product utilisation;
- repair, reuse, refurbishment or remanufacturing rates;
- collection or return rates;
- recovery potential;
- actual recovery;
- recycling yield;
- waste diverted from disposal;
- non-recycled waste.

ESRS E5 is particularly useful for identifying reporting-aligned data points in this category. Its resource inflow data points include the total weight of products and technical and biological materials used, the percentage of biological materials and the absolute and percentage use of secondary reused or recycled components, intermediary products and materials. Its resource outflow data points include expected durability relative to the industry average, reparability, recyclable content, total waste generated, hazardous and non-hazardous waste diverted from disposal, waste directed to disposal, non-recycled waste and waste composition.

This matters because these are not abstract sustainability indicators. They are often directly linked to the commercial case. Durability affects asset lifetime. Reparability affects maintenance costs and residual value. Secondary input use affects exposure to virgin material prices. Waste diversion and recovery yield affect both environmental outcomes and offtake value.

Environmental outcome indicators

Circular performance indicators show what is happening to materials and products. They do not always show the wider environmental consequences. For that, investors

may need to complement circularity indicators with environmental outcome indicators.

Relevant indicators may include:

- avoided greenhouse gas emissions;
- avoided virgin material extraction;
- avoided waste generation;
- reduced water use;
- reduced land use;
- reduced pollution or toxicity;
- reduced biodiversity pressure;
- reduced dependence on critical raw materials.

Where environmental claims go beyond material quantities, Life Cycle Assessment is usually the most appropriate method. This is particularly relevant when the investor needs to understand trade-offs among materials, production processes, transport, use-phase impacts and end-of-life outcomes.

The GCP is also useful here. Its 'Impact of the Loop' module explicitly connects circular strategies to greenhouse gas impact, nature impact and social impact. This is helpful because it recognises that circularity can create synergies, but also trade-offs, for example, where a material substitution improves recyclability but increases land-use pressure.

Social and economic indicators

Social impact should not be assumed from circularity. Circular economy activities can create jobs, support repair and reuse skills, formalise parts of the waste sector, reduce unsafe waste handling, or improve access to lower-cost products through resale, sharing or refurbishment. But these outcomes depend on the conditions under which circularity is delivered.

Relevant indicators may include:

- jobs created or retained;
- quality of employment;
- training and upskilling;
- health and safety;
- wages and working conditions;
- formalisation of informal work;
- inclusion of affected workers and communities;
- labour rights in recycling, repair, reuse and waste-management chains.

ESRS S1 can be useful for these social and workforce questions, particularly where circular economy claims include employment, skills or just-transition outcomes. The point is not that every circular investment needs a long social impact framework. Rather, where social claims are made, investors should test whether the evidence goes beyond job numbers and considers the quality, safety and distribution of that work.

3.5. Establish baselines and proving additionality

The credibility of many circular economy impact claims depends on the baseline against which they are assessed. This is particularly true for claims relating to 'avoided' material use, emissions, waste or extraction. Avoided-impact claims require a counterfactual: what would most likely have happened without the circular solution? Establishing this alternative scenario is often challenging.

For example, a reusable packaging model may claim to avoid single-use packaging, but the actual impact will be influenced by a number of factors such as the number of reuse cycles achieved, washing and logistics impacts, loss rates, and the type of packaging displaced. A secondary material producer may claim to avoid virgin extraction, but this depends on whether the recovered material is of sufficient quality to substitute virgin input. Similarly, a refurbishment business may claim to avoid new production, but the impact depends on whether customers would otherwise have purchased a new product, delayed purchase, or bought second-hand elsewhere.

For impact measurement, the implication is that baseline assumptions should be explicit. This includes:

- the reference product, material or process being displaced;
- the time horizon over which the comparison is made;
- the functional equivalence of the circular and linear alternatives;
- the expected substitution rate;
- the treatment of transport, energy use and processing impacts;
- the evidence that displacement is actually occurring.

Additionality should also be considered when assessing impact. While an investment may support a circular activity, it is important to determine whether the resulting impact would have happened anyway. This is particularly relevant where circular practices are already required by regulation, have become industry standard, or are already financed by other actors. The aim is not to impose an unrealistic burden of proof, but to avoid overstating the role of the investment in generating the impact. Without a credible baseline and a reasonable assessment of additionality, avoided-impact claims risk becoming assertions rather than evidence. This is one of the main routes through which circularity-washing can occur.

In summary

For investors looking to leverage the impact potential of the circular economy, the central task is to move beyond activity labels and assess whether circular business models generate measurable outcomes compared with credible linear alternatives. Circularity can be a powerful route to impact, but only where the pathway from circular action to environmental and social outcome is understood, evidenced and monitored.

Investors should therefore:

- **Start with the impact claim:** Be clear whether the investment is claiming to reduce material use, avoid waste, extend product life, lower emissions, improve resource security, create quality jobs, or support another outcome. The indicator choice should follow the claim being made.
- **Define the assessment level:** Identify whether impact occurs at the material, product, or organisation level. Circular value and impact often extend beyond the financed firm, meaning company-level indicators alone may even be insufficient.
- **Map the pathway from action to outcome:** Distinguish between the circular activity, the direct output, the wider outcome and the final impact. Recycled content, product durability or waste diversion are useful indicators, but they only become impact claims when linked to what changes in the real economy.
- **Use ESRS E5 for reporting-aligned circularity data where available:** ESRS E5 provides a practical reference for resource inflows, secondary material use, product durability, reparability, recyclable content, waste generation, waste diverted from disposal, non-recycled waste, circular economy targets and financial effects from resource-use risks and opportunities.
- **Use specialist tools where the claim requires them:** The GCP is the strongest reference for robust circularity measurement; avoided-resource-use approaches are useful where the claim is reduced linear material demand; Life Cycle Assessment is needed where circularity claims must be translated into emissions, water, toxicity, land-use or other environmental outcomes; IRIS+ can support standardised investor-facing impact reporting.
- **Establish a credible baseline:** Avoided-impact claims require a clear counterfactual. Investors should understand what linear product, material, process or business model is being displaced, over what time horizon, and with what assumptions.
- **Test for trade-offs and overclaiming:** Circular activities can still create harm through toxic inputs, poor labour conditions, rebound effects, excessive energy use, downcycling or weak displacement of virgin materials. Investors should assess these limitations rather than assuming circularity is inherently positive.
- **Disclose assumptions and data quality:** Circular impact claims should be transparent about methodologies, assumptions, limitations, double-counting and the quality of available data. Where evidence is uncertain, it should be stated clearly.

The implication is not that circular economy impact is too complex to measure. Rather, investors need to measure the right thing. The most useful impact assessment is not the one that produces the largest headline number, but the one that helps investors understand whether circular models are genuinely reducing linear resource dependence, retaining value, and contributing to wider environmental and social outcomes.

Relevant case studies, resources and links

1. [Global Circularity Protocol](#)
2. [Global Impact Investment Network](#)
3. [Guidance on Resource Efficiency and Circular Economy Target Setting](#)

Pending Approval

In summary: Applying a circular economy lens across the investment process

The circular economy presents a clear investment opportunity, but one that is often difficult to recognise using conventional financial assessment and logic alone. Circular models can generate value, reduce risk and deliver impact, but they do so in ways that differ from linear models. Value is often captured over longer time horizons, risk is shaped by resource exposure and system dependencies, and impact depends on whether circular activities actually displace linear resource use.

The practical challenge is therefore not to create a separate investment logic, but to apply established investment principles in a way that reflects how circular models actually work. This means embedding a circular economy lens across the investment process:

equity. In the circular economy, where conventional metrics may not capture asset life-extension, material recovery, or long-term service streams, a clear rationale becomes even more critical. Valuation methods depend on the maturity level:

1. Sourcing and classification:

Start by clarifying whether an activity retains, extends or recovers value in products, components, materials or resources. Classify the opportunity using recognised categories such as Design and Production, Circular Use or Value Recovery, and distinguish between circular business models and incremental improvements to otherwise linear activity.

2. Screening:

Do not reject a model simply because it does not resemble a conventional linear business. Ask whether value is generated over the lifecycle, whether revenues are recurring or delayed, whether ownership is retained, and whether the business depends on specific material flows, contracts or value-chain relationships.

3. Due diligence:

In circular models, these three dimensions often overlap. Durability, utilisation, repair, reuse and recovery may affect commercial value, risk exposure and impact performance at the same time. Due diligence should therefore test the financial model, the material logic, the risk profile and the impact pathway together.

4. Structuring:

When the business case is strong but difficult to finance, consider whether the structure aligns with the model. Contracts, receivables, residual value, feedstock agreements, offtake agreements, leasing structures, or staged finance may be needed to translate circular value into bankable terms.

5. Monitoring:

Once capital is deployed, monitor the indicators that matter to the model. This may include utilisation rates, product lifetime, repair rates, return rates, recovery rates, secondary material use, feedstock reliability, offtake performance and impact indicators linked to the original claim.

6. Due diligence:

In circular models, these three dimensions often overlap. Durability, utilisation, repair, reuse and recovery may affect commercial value, risk exposure and impact performance at the same time. Due diligence should therefore test the financial model, the material logic, the risk profile and the impact pathway together.

The central message is that circular economy investment should be assessed on its own terms. That does not mean lowering financial standards or accepting weaker investment cases. It means recognising where conventional assessment methods may undervalue lifecycle revenue, overlook resource-related risk, misread circular business models, or accept circularity claims without sufficient evidence. The strongest opportunities will be those where circular value is clearly captured, resource and execution risks are actively managed, and impact is measured against a credible linear baseline.

References

1. **United Nations Environment Programme Finance Initiative.** (2025). *Unlocking Circular Economy Finance: From Vision to Action*.
<https://www.unepfi.org/wordpress/wp-content/uploads/2025/12/Unlocking-Circular-Economy-Financing-From-Vision-to-Action.pdf>
2. **Ellen Macarthur Foundation.** (2020). *Financing the Circular Economy: Capturing the Opportunity*.
<https://content.ellenmacarthurfoundation.org/m/40e9896bc9131b6b/original/Financing-the-circular-economy-Capturing-the-opportunity.pdf>
https://ec.europa.eu/commission/presscorner/detail/en/ip_25_1710
3. **European Environment Agency.** (2026). *Unlocking the circular economy: investment needs, barriers and enabling conditions*.
<https://www.eea.europa.eu/en/analysis/publications/unlocking-the-circular-economy-investment-needs-barriers-and-enabling-conditions>
4. **Circle Economy.** (2025). *Circularity Gap Report Finance 2025*.
<https://finance.circularity-gap.world/>
5. **European Commission.** (2020). *Categorisation System for the Circular Economy: A Sector-Agnostic Approach for Activities Contributing to the Circular Economy*.
https://circulareconomy.europa.eu/platform/sites/default/files/categorisation_system_for_the_ce.pdf
6. **International Finance Corporation.** (2025). *Harmonized Circular Economy Finance Guidelines*. <https://www.ifc.org/content/dam/ifc/doc/2025/harmonized-circular-economy-finance-guidelines-en.pdf>
7. **Kopgroep Circulair Financieren.** (2026). *Circular Economy Finance Guidelines*.
https://www.nvb.nl/media/g5uncczl/340321_aaex_di_qrc_circular-finance-guidelines_full_a4_v5.pdf
8. **Circle Economy.** (2018). *Linear Risks* <https://www.wbcsd.org/wp-content/uploads/2023/12/Linear-Risks.pdf>
9. **World Business Council for Sustainable Development.** (2025). *A Global Framework to Measure, Manage and Communicate Business Circularity*.
<https://www.wbcsd.org/resources/a-global-framework-to-measure-manage-and-communicate-business-circularity/>
10. **United Nations Environment Programme Finance Initiative.** (2023). *Guidance on Resource Efficiency and Circular Economy Target Setting (Version 2)*.
<https://www.unepfi.org/industries/banking/guidance-on-resource-efficiency-and-circular-economy-target-setting-version-2>

Consortium

INOVA⁺



The logo consists of a large circle divided into two segments. The left segment is a darker teal color, and the right segment is a lighter, vibrant green color. The text "circular invest" is positioned in the center of the circle, spanning across both segments. The word "circular" is in a white, lowercase, sans-serif font, and the word "invest" is in a white, lowercase, sans-serif font, slightly smaller than "circular".

circular
invest