

Mapping the circular financing landscape & needs

EU CERC

FUNDED BY

Global Gateway

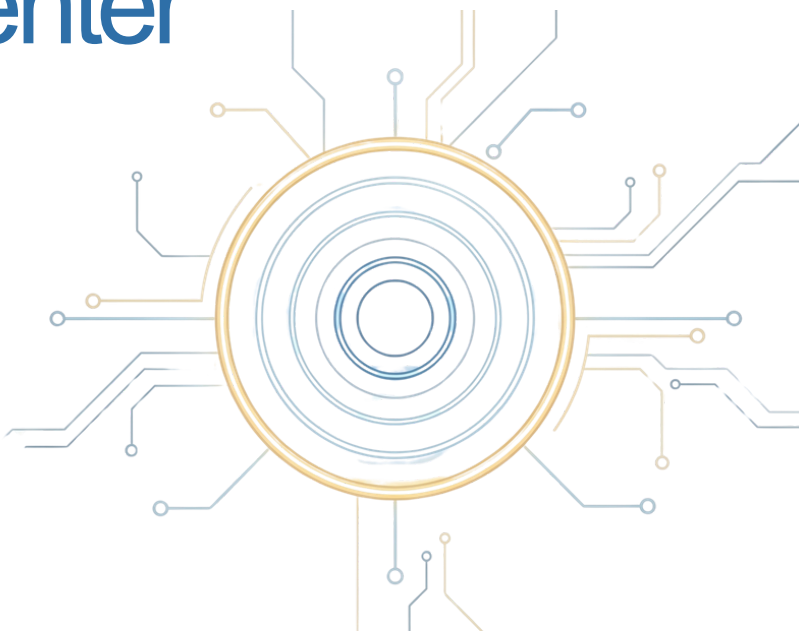
SUOMI FINLAND

IMPLEMENTED BY

Enabel

SITRA

EU Circular Economy Resource Center



This report was produced under the EU Circular Economy Resource Centre (EU CERC).

The EU CERC is a joint initiative of the European Commission, the Finnish Ministry for Foreign Affairs, Finnish Innovation Fund - Sitra and the Belgian agency for international cooperation - Enabel.

It reflects the EU's growing commitment to shape the global sustainability agenda and to operationalise its circular economy objectives at international level, based on peer-to-peer exchanges and partnerships between EU and third country stakeholders.

The EU CERC was established to support the uptake of sound, inclusive and high-impact circular economy policies, strategies and business models in EU partner countries. It contributes to the international dimension of key EU frameworks, including the European Green Deal, the Circular Economy Action Plan (CEAP), the Clean Industrial Deal (and the upcoming Circular Economy Act), the Global Gateway strategy and the EU's commitment to achieving the Sustainable Development Goals (SDGs).

By promoting partnerships and mutual learning between the EU and partner countries, **the EU CERC advances EU interests in responsible value chains, economic resilience and climate and environmental diplomacy**, while filling a strategic gap by providing tailored support where circularity can generate clear development and sustainability dividends.

EU CERC | FUNDED BY Global Gateway, SUOMI FINLAND | IMPLEMENTED BY Enabel, SITRA

Ovation

The EU CERC's implementation model is built around 3 interconnected Labs, each with distinct but complementary roles:

Knowledge Lab

Offers partnership and collaboration support between EU and partner countries. Matches demand for support with supply by facilitating the exchange of circular economy knowledge and best practices.

Policy Lab

Supports the development and implementation of circular economy policies and road maps in partner countries.

Business Lab

Supports the circular economy transition for enterprises and business support organisations in partner countries. Strengthens collaboration between EU and partner countries' enterprises.

This report was developed through the technical and strategic contributions of the EU CERC Business Lab team: Frederik van den Bosch and Nicoletta Favaretto, as well as the Ovation team: Luisa Schillinger, Stéphane Moubacka, David Valentiny, Laurent Mikolajczak, and Nathalie Joie, with the support of the EU CERC project partners.

Disclaimer: The opinions expressed in this report are the sole responsibility of the authors, and do not necessarily reflect the views of the project implementing partners or the project donors.

This report is also an open invitation to the ecosystem: Given that the systemic scaling of circular finance transcends the mandate of any single organization, many of the strategic pathways and recommendations outlined across these 5 priority pillars are designed to be sector-neutral. We explicitly treat these actionable guidelines not merely as internal directives, but as an open invitation to any financial institution, policy-maker, development agency, enterprise, or ecosystem builder who recognizes an opportunity to contribute. True systemic change requires collective ownership; any party with the capacity, capital, or expertise to advance these individual milestones is warmly invited to leverage these frameworks and collaborate to turn these recommendations into an operational reality.

EU CERC | FUNDED BY Global Gateway, SUOMI FINLAND | IMPLEMENTED BY Enabel, SITRA

Table of Contents

Abbreviations **5**
1. Mapping objectives and methodology **6**
2. Identified fields of action for circular financing **9**
3.1 Capacity-building of financial institutions **11**
Recommendations and actionable pathways 19
1. Embed circular frameworks into daily operations 19
2. Deploy advanced technical assistance & target-driven pilots 20
3. Establish collaborative platforms & data repositories 20
4. Translate material flows & build predictive risk simulators 21
3.2 Measurement and reporting standards **21**
Recommendations and actionable pathways 27
1. Evolve taxonomies into frontline operational assessment tools 27
2. Tropicalize frameworks for EU partner countries and local market realities 28
3. Quantify linear risks and integrate empirical default-reduction metrics 28
4. Decouple carbon proxies and aggregate upstream portfolios 29
3.3 Regulations and policy enforcement **29**
Recommendations and actionable pathways 32
1. Use mandatory, output-linked targets and circularity as strategic priority 32
2. Deploy structured value-chain compliance workshops along supply chains 33
3. Promote fiscal alignment across global value chains 33
4. Streamline administrative barriers and establish safety standards 34
3.4 Circular business model support and pipeline-building **34**
Recommendations and actionable pathways 43
1. Promote customer-driven revenue modelling, diversification, and realistic monetization 43
2. Incorporate active corporate transition mechanisms within commercial banking portfolios 44
3. Encourage peer-to-peer corporate learning platforms for transition journeys 44
4. Elevate circularity within international cooperation strategies and dedicated events 45
5. Deploy decentralized, action-research to formalize regional circular ecosystems 45
3.5 Systemic financing **45**
Recommendations and actionable pathways 53
1. Fund and deploy longitudinal consumer behavioral studies and structural logistics testing 54
2. Institutionalize automated long-term impact portals and data hubs 54
3. Embed circular venture financial windows directly into major trade and logistics corridors 54
4. Establish collaborative Think and Do Tanks to co-design flexible financial products 55
5. Identify and promote cross-sector synergy links to scale industrial symbiosis 55
ANNEXES **56**
Reference list to key documents 56

Abbreviations

ACEA	Africa Circular Economy Alliance
ACEF	Africa Circular Economy Facility
AfDB	African Development Bank
BGK	Bank Gospodarstwa Krajowego
BMZ	German Federal Ministry for Economic Cooperation and Development
CAPEX	Capital Expenditure
CDC	Caisse des Dépôts et Consignations
CDP	Cassa Depositi e Prestiti
CE	Circular Economy
CEFG	Circular Economy Finance Group
CEIF	Circular Economy Impact Fund
DFI	Development Finance Institution
EIB	European Investment Bank
EMF	Ellen MacArthur Foundation
EPR	Extended Producer Responsibility
ESG	Environmental, Social, and Governance
EU CERC	European Union Circular Economy Resource Center
FMCG	Fast-Moving Consumer Goods
GHG	Greenhouse Gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GmbH)
ICO	Instituto de Crédito Oficial
IFC	International Finance Corporation
JICE	Joint Initiative on Circular Economy
KfW	Kreditanstalt für Wiederaufbau
KPI	Key Performance Indicator
LP	Limited Partner
MDB	Multilateral Development Bank
MSME	Micro, Small and Medium Sized Enterprises
OPEX	Operational Expenditures
PE	Private Equity
R&I	Research and Innovation
SDG	Sustainable Development Goals
TA	Technical Assistance
UGEFA	Uganda Green Enterprise Finance Accelerator
UNEP	United Nations Environment Program
VC	Venture Capital
WBCSD	World Business Council for Sustainable Development

1. Mapping objectives and methodology

The transition toward a **Circular Economy (CE)** is a strategic priority for the European Union, as outlined in the **2020 Circular Economy Action Plan**. This transition is essential for achieving climate neutrality, preserving biodiversity, and increasing the resilience of global value chains. To promote this shift globally, the **EU CERC** was established as a partnership between the EU, Finland, Sitra, and Enabel.

Within the EU CERC, the **Business Lab** focuses on supporting partner country businesses, particularly in Africa, Asia, and Latin America, in transitioning to circular models. A critical bottleneck in this transition is the early stage of development of the circular investment ecosystem. Even though momentum is growing, circular finance remains a niche market, often hindered by a lack of understanding, a lack of coordination, and a lack of financial instruments tailored to circular business models.

This report provides a comprehensive analysis of the CE financial landscape in EU partner countries, with a primary focus on Africa. By combining the mapping of financial actors with the identification of research and innovation (R&I) grant schemes, this study offers a unified perspective on the funding options available to CE entrepreneurs. The integration of these two areas was driven by the observation that financial products and R&I support often share similar systemic barriers in partner countries.

By consolidating these findings into a single internal analytical report, this study moves beyond a static listing. It utilized **qualitative analysis** to document real finance journeys, tracing how circular initiatives are supported and identifying the critical success factors and pitfalls encountered in practice. This evidence base is designed to inform public-private dialogues and empower stakeholders across the value chain to move from fragmented efforts toward a systemic, bankable circular transition.

Data collection process

To deliver realistic and actionable insights into CE financing, this mapping utilized a **qualitative, semi-structured interview approach**. By moving beyond static inventories of actors, the methodology documented the reality of financing CE businesses today to understand the practicalities of circular deal-making.

The mapping was built through a multi-layered research process combining exhaustive desk work with direct stakeholder engagement:

- **Desk review:** We conducted a comprehensive analysis of existing literature from organizations such as GIZ, the *Ellen MacArthur Foundation*, *Chatham House*, and the

IFC to establish an initial database. This phase was crucial to gaining a high-level overview of the current CE financing landscape, identifying emerging trends, barriers, and frameworks used by financiers. We would like to specifically highlight the foundational work done by the *PREVENT Waste Alliance*, whose specialized mapping for members provided a robust starting point for identifying active entities.

- **Online research and database building:** Through public reports and corporate websites, we gathered data on investment mandates, geographic reach, target sectors, and client profiles for financiers that explicitly include CE as an area of interest. This data was used to build our mapping of over 100 actors (see annexes).

- **Semi-structured interviews:** Outreach was conducted through the networks of the EU CERC, *Ovation*, and partner organizations, as well as direct professional targeting via LinkedIn. We conducted **23 in-depth interviews** of around 1 hour each, exploring how circularity is integrated into investment approaches, the quality of financial instruments offered, and concrete challenges faced during past circular deals. We also gathered insights into what is needed to finance more CE initiatives. For R&I grant schemes, the interviews were targeted to clarify eligibility, funding modalities, and how these early-stage grants link to later-stage bankability.

Our outreach targeted a strategic mix of interview partners that work or have worked for a wide range of financial institutions: Multilateral Development Banks (MDBs), Development Finance Institutions (DFIs), commercial banks, investment funds, foundations, etc. The goal was not to be exhaustive, but to get input from a representative group of financiers that have interest and ambition to finance circularity. We aimed to understand what they currently do and what they would need to finance (a lot) more circularity.

Some selected parties were an obvious choice because they are very vocal about their active involvement in CE financing, while others who were already part of our network demonstrated interest and were easy to access, alongside further interesting institutions that were identified along the way through direct recommendations.

Disclaimer: *The findings presented in this report are derived exclusively from a series of interviews and desk research. This mapping is not intended to serve as a comprehensive quantitative assessment or an exhaustive database of all actors active in the CE financing space. Instead, the objective is to provide deep, practical insights into the motivations, barriers, and needs of representative institutions. The report highlights specific examples of excellence and common hurdles and should be viewed as a strategic snapshot of the ecosystem rather than a complete market census. Furthermore, it is important to note that these insights reflect the specific perspectives, operational experiences, and technical expertise of the individual interview partners. These insights do not necessarily represent the formal institutional positions or official policy mandates of the organizations as a whole.*

The insights from our interviews reveal circular investment activity across **Africa** (notably in Kenya, Rwanda, Uganda, Ivory Coast, Nigeria, and Ghana), **Latin America** (led by Brazil and Colombia), and **Asia** (India). Many interviewees view **Europe** as the primary global anchor for the CE. Beyond being a prime market for circular investments, the EU is increasingly regarded as the global benchmark for **policy and framework development**. Financiers look to European regulations, such as the EU Taxonomy and the Circular Economy Action Plan, as blueprints to inspire local frameworks in partner countries. While most initiatives remain sector-agnostic, actual capital allocation is currently concentrated in **downstream waste management and recycling**. However, an emerging shift toward **upstream innovation** is visible, with targeted funding now supporting circular design, bio-based material substitution, and product life extension through formal repair and refurbishment models. This transition is most active in sectors with high material intensity, specifically **regenerative agriculture, construction, textiles, plastics, and electronics**.

Please find below an indicative list of the main questions covered during the interview. A detailed **Interview Guide** was previously shared, discussed, and validated with the EU CERC Business Lab team:

- In your work, do you use a definition for “circularity”? Which one?
- What is the motivation for your organization to target CE businesses?
- What type of CE initiatives are you aiming to fund (sector, maturity, location)?
- If you think about the past 2 years, who are your typical “circular” clients? And how do you support them (which instruments)?
- What kind of grants do you provide (size, timeline, refundability)?
- What are their modalities, targets, amounts, procedures, etc.?
- How do your clients link to companies in the EU?
- What non-financial / circular-specific targets do you use for the decision making (ex-ante) and reporting (ex-post)?
- Can you provide recent examples that you are proud of and would like to repeat?
- What do you need to finance more CE initiatives?

Methodological note on data attribution: Throughout this report, a deliberate distinction is made regarding how individual financial institutions are named or anonymized. Wherever the text highlights specific financial products, taxonomy criteria, or strategic mandates that are publicly available or derived from open desk research, organizations are explicitly named to provide verifiable market examples. In contrast, when the findings discuss personal operational reflections, localized hurdles, or sensitive internal institutional insights shared during the semi-structured interview process, the sources have been intentionally anonymized. This approach respects the confidentiality of our interview partners and ensures that the practical realities of circular deal-making are captured without misrepresenting a single institution's formal policy position.

A comprehensive table of all referenced documents is provided in the Annexes.

2. Identified fields of action for circular financing

This report explores the mechanisms required to shift global capital allocation away from destructive linear value chains toward sustainable, closed-loop systems. At the very core of this systemic challenge lies a profound macro-economic reality: the global economy has long operated by externalizing its environmental and social costs, the systemic effects of which have now become ever more visible and threatening to all of us. While global society is slowly gaining deeper insight and a clearer understanding of these ecological boundaries, our core business models and broader economies do not yet fully incorporate this monumental challenge. From a theoretical point of view, it is straightforward to analyze these market failures and advocate for the CE as a solution. In practice, however, circularity currently thrives only in limited cases, sometimes occurring entirely by accident, other times driven by intentional innovation. To transition circularity from a series of niche successes into a dominant, mainstream economic engine, far more must be done; it demands fundamental changes across our lifestyles, consumer habits, and industrial structures. Since capital allocation is the lifeblood of industrial scaling, this report explores what diverse financiers already do and what they would need to do more to dramatically scale their support. Achieving this shift will require a coordinated, multi-stakeholder collaboration spanning the public sector, private industry, producers, consumers, academia, and the media. Because financiers are intimately involved in almost every transaction and economic decision on this globe, they hold a uniquely crucial key to unlocking true global circularity.

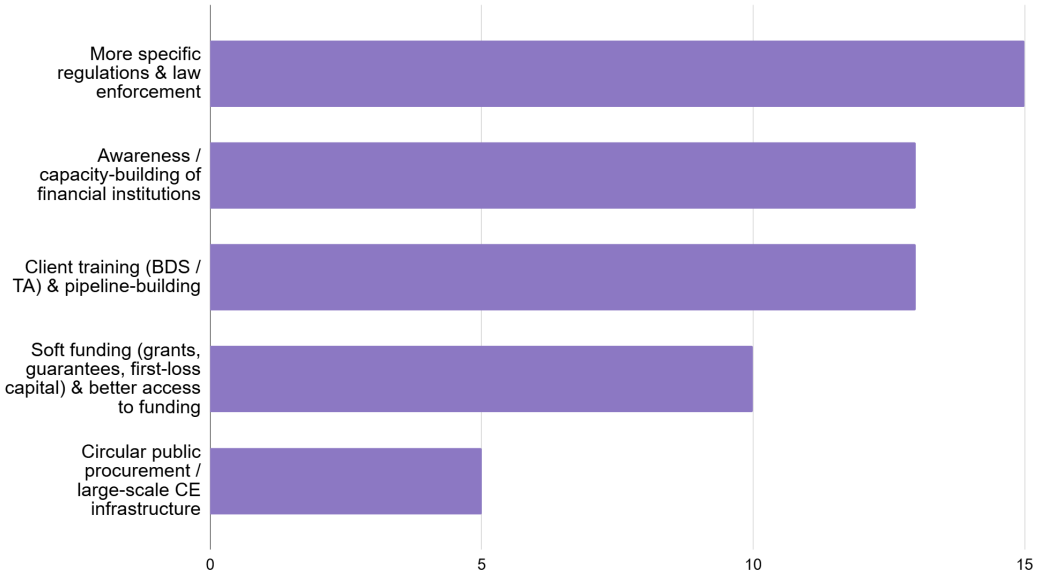
Given this pivotal role, looking at the financing gap strictly as a generalized shortage of available capital overlooks how investment pathways are formed. This report is the result of the search for a more meaningful, constructive approach that examines the operational mechanics of capital allocation itself. Rather than treating the current scaling limitations as a static baseline, it is highly valuable to focus directly on the practical perspective of capital providers to understand what diverse institutions already achieve and identify the precise adjustments needed to scale their support. This investigative approach shifts the conversation away from the simplistic narrative that capital is missing, uncovering the specific systemic barriers and misaligned risk frameworks that hold investors back from funding the circular transition, and inspirational indications of what can be done to guide future market development.

Based on extensive fieldwork and in-depth stakeholder engagement with more than 20 financial organizations, this chapter analyzes the practical market realities, core needs, and actionable opportunities defining the CE financing landscape. Each section is structurally anchored around key observations, explicit systemic barriers, highlighting practical examples and best practices from active market leaders. Every section concludes with concrete, prioritized recommendations for each of the 5 identified priority pillars: capacity-building of financial institutions (section 3.1), which explores the internalization of circular definitions and internal risk adjustments; measurement and reporting standards (section 3.2), assessing the transition from rigid taxonomies to pragmatic, field-level indicators; regulations and policy enforcement (section 3.3), highlighting the impact of legal frameworks on predictable market creation; circular business

models and pipeline-building (section 3.4), addressing structural bottlenecks in startup support and investment readiness ; and finally, systemic financing (section 3.5), which highlights the shift from siloed deal evaluations toward integrated, value-chain-wide investment structures.

The following findings and strategic pathways are directly informed by our qualitative stakeholder interviews that captured these different perspectives. The illustration below outlines the highlighted priority action areas required to strengthen CE financing in the future, as defined from the point of view of the interviewed financial institutions.

Fig. 1: Feedback from interviewees on what is needed for advancing the CE (financing)



Source: Interview insights (March-May 2026)

To complement this comprehensive understanding of these priority areas, it is highly recommended to read this report in parallel with the **significant study on investment barriers specifically for the CE recently published by the European Investment Bank (EIB) and the European Commission**. Because existing data sources have historically lacked the specific metrics needed to measure circularity as a distinct investment category, this research project required consultants to gather data from scratch. Even though their study focuses solely on Europe, it represents a pivotal step toward setting the first formal data baseline for the sector, quantifying a **remaining annual investment gap of around €82 billion needed to meet EU circularity goals by 2040**. Many of the study's core observations and conclusions regarding structural barriers can be effectively transposed to partner countries, making them highly relevant to the broader context of this document.

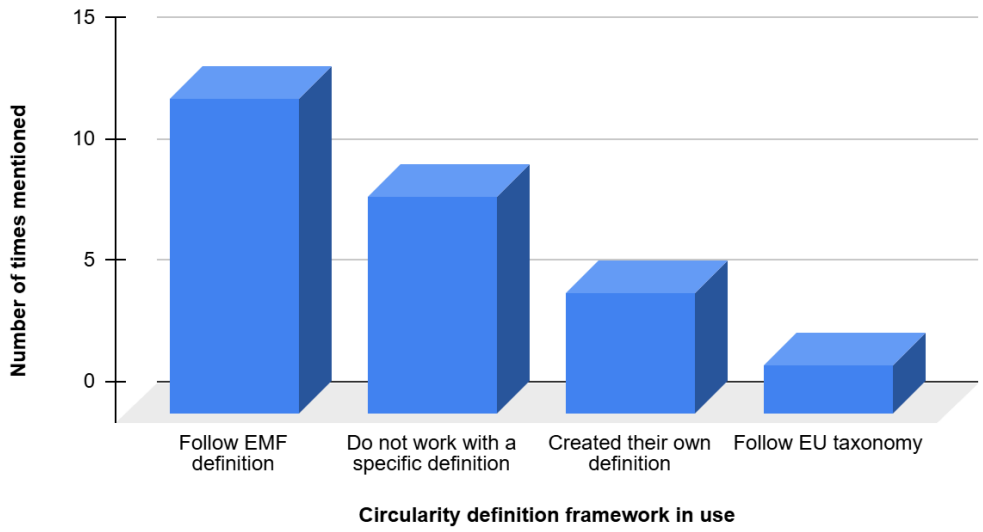
3.1 Capacity-building of financial institutions

The global financial landscape is experiencing a profound paradigm shift where the CE is moving from a high-level sustainability concept into a core strategy for portfolio resilience. As the linear economic model faces unprecedented resource volatility and climate pressures, the CE is emerging not merely as a sustainability milestone, but as a fundamental framework for future economic resilience. This chapter explores how financial institutions are building the internal capacity to understand, track, and scale circular investments.

Key Observation: Financiers look to the Ellen MacArthur Foundation's work as a reference to anchor their own circular economy definitions, which can work as a gateway to begin incorporating the more detailed, existing criteria found within the EU Taxonomy and the IFC guidelines.

The work of the *Ellen MacArthur Foundation* (EMF) serves as the primary, almost universal reference for defining the CE. Field research shows that more than half of the interviewed financiers adopt its core principles: designing out waste and pollution, keeping products / materials in use for as long as possible, and regenerating natural systems.

Fig. 2: CE definitions used by the interviewed financial institutions



Source: Interview insights (March-May 2026)

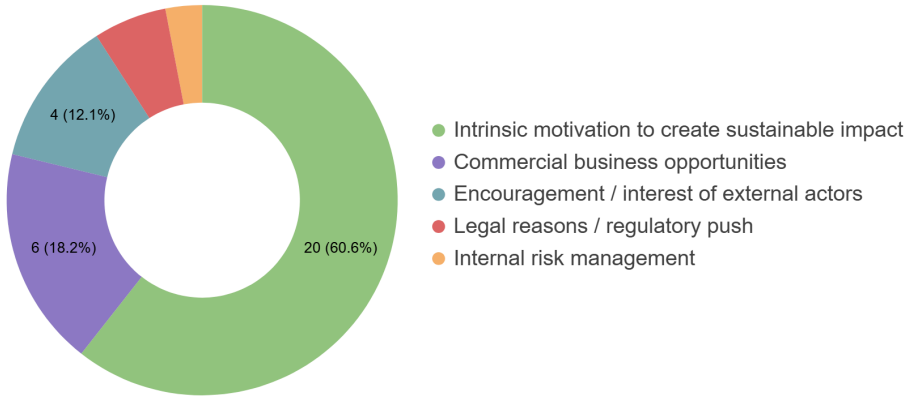
Beyond these high-level principles, many financiers further refer to the **R-Strategies framework**, originally developed as the 9R hierarchy in 2017 by the *PBL Netherlands Environmental Assessment Agency* in collaboration with researchers from *Utrecht University*, using it as a practical ladder to categorize the circular intensity of a given project.

Without a clear internal definition of circularity, financial institutions can easily find themselves in a reactive position, sometimes missing opportunities or supporting circular practices only by chance rather than by design. For instance, when banks align with broad national green taxonomies, frontline teams may struggle to evaluate circular deals in key sectors like tech or manufacturing if guidelines lean heavily toward agriculture. Similarly, international programs and investment funds often have to adjust how they define circularity depending on their funding partners or external advisors. Moving from case-by-case assessments to a clear, unified circular thesis helps institutions transition from reactive evaluation to a proactive, commercial strategy.

Key Observation: CE as a focus area is often cited as a sub-topic of sustainability.

For the majority of financial actors, the move toward circularity is not an intentional, standalone strategy, but rather a functional byproduct of broader sustainability goals. Consequently, many circular projects are integrated into existing portfolios under the umbrellas of climate mitigation, resource efficiency, or regenerative agriculture, making it difficult to isolate circularity as a distinct financial asset class. With more clarity on the concept of circularity, more sector-specific examples, and more information, the notion of circularity can be used more widely as a condition or target that can also be reported on.

Fig. 3: Motivation(s) mentioned by interview partners to get into CE financing



Source: Interview insights (March-May 2026)

This embedded approach for the CE can manifest as a manifold strategy. The CE is increasingly recognized as a multitool capable of simultaneously addressing the economic, social, and environmental dimensions of sustainability, including job creation, climate adaptation, climate mitigation, food security, and industrial decarbonization. Some African nations mainstream, for instance, circularity as an inclusive green growth strategy to fulfill their development priorities while meeting the goals of the *Paris Agreement* and the *Africa Union's Agenda 2063*.

To see this multi-layered approach in a commercial context, we can look at how a major European bank activates circularity not as an ideological preference, but strictly through the lens of financial materiality. This means the bank integrates circularity into their broader sustainability advisory and retail strategies only when it is identified as a critical factor for a specific client's business stability and risk profile. By organizing technical knowledge and capital only where circularity is material to the client's sector, the bank moves CE away from being an abstract sustainability concept and transforms it into a pragmatic tool for maintaining stable capital markets and resilient credit portfolios.

The integration of circularity into broader mandates is also evident in philanthropy. One of the interviewed foundations underwent a global strategy reset in 2018, pivoting toward the dual pillars of poverty alleviation and climate action in emerging markets. In this transition, they began **using their grant-making capacity to promote entrepreneurship among SMEs within the CE**. This twin objective approach used circularity as a vehicle for economic development, specifically targeting employment for youth and women, while simultaneously addressing climate goals by reducing the GHG emissions associated with landfilling and waste burning. However, recognizing that the CE is an expansive and complex field, the foundation consciously avoided a scattered approach that might dilute its impact. Instead, they focused specifically on the waste aspect of circularity in 4 high-impact streams: textiles, electronics, plastics, and food. By focusing on the entire value chain within these waste streams, the foundation uses its capital to de-risk and pilot circular models, generating the evidence needed to eventually scale these initiatives into mainstream commercial or government financing.

Recent learnings have led the foundation to narrow down their focus once again. Realizing that organic waste accounts for over 50% of total waste generated globally, they transitioned from exploring multiple streams to a specific focus on food loss and waste within their broader work. This shift was strongly encouraged by constant engagement with various stakeholders, where a consensus emerged on the urgency of sustainable food ecosystems. Adopting a **whole systems approach**, the foundation looks beyond waste management to address land productivity and soil health. Recognizing that overfarming and high fertilizer use have degraded soil quality and hampered agricultural / land productivity globally, circularity is deployed as a solution for soil conservation and regeneration.

Key Observation: When circularity is understood as a systemic tool for change, a more intentional approach is adopted that actively structures the market rather than waiting for ideal projects to arrive.

For instance, *Invest-NL* operates as the Dutch high-risk, high-impact national promotional institution, mandated by law to finance systemic transitions that the private market is currently not yet ready to touch. Positioned as an independent entity between the Dutch government and the private sector, the VC firm uses a long-term revolving fund to catalyze 6 transitions: energy, bio-based and CE, life sciences and health, agrifood, deep tech, and water and biodiversity. ***Invest-NL* provides 2 types of investments**, direct capital typically targeting €10 million+ and

indirect capital targeting €25 million+ ticket sizes. By providing up to 50% of capital for high-risk ventures, they leverage their deep sectoral knowledge to prove the viability of circular models. Every transition focus area has its own business development department dedicated to engineering new instruments. For the bio-based and CE transition, the team focuses on scaling first-of-a-kind plants, green or biochemicals, critical raw materials, construction, textiles, and plastics. A primary example of this work is their recently published **specialized white paper on electronics**; this study shows how these e-waste material flows occur and what steps are needed to achieve the circular ambition by 2050. By proactively **scaling these efforts nationally through the leadership collective in circular financing** (*Kopgroep Circulair Financieren*) and **internationally through co-chairing CEFG, steering JICE,** as well as the planned 2028 joint venture with Invest International, *Invest-NL* ensures that circularity moves from a public policy goal to a bankable private sector reality.

This transition from passive sustainability to intentional funding is also visible in commercial banking, where environmental factors are increasingly treated as immediate credit risk realities. *Bancolombia* serves as an inspirational example, institutionalizing the CE through 2 pillars: **internal operational circularity**, which focuses on how *Bancolombia* as an entity manages its own waste, water, and processes to become circular; and **responsible banking principles** applied to their portfolio. Under this second pillar, the bank integrates climate change, biodiversity, and circularity into its core client strategy. Especially since the 2018 *El Niño* drought, where linear agricultural clients faced total crop failure which led to widespread loan default, ***Bancolombia* views CE as a vital risk insurance policy** rather than a social gesture. This conviction is supported by research showing that circularity improves resilience and henceforth credit valuation: by reducing operational volatility and exposure to resource shocks, circular companies exhibit a lower probability of default, justifying a superior credit score and lower risk for the bank. To operationalize this, the bank offers a sophisticated suite of sustainable products. The bank sees it as its **direct responsibility to educate and accompany clients**, providing the necessary knowledge to navigate these sophisticated products.

Key Observation: Economic opportunities and risk management are identified as drivers, with the potential to convince many more financiers to invest in CE.

Once inside the market, financiers increasingly activate circular strategies as a strategic shield against supply chain shocks, resource scarcity, and credit volatility, effectively turning resource-independence into a key indicator of portfolio resilience. Beyond environmental metrics, a few financiers identified tangible economic drivers, such as supply chain diversification, cost management, and competitive margins, as the keys to convincing the wider sector to scale up. For businesses in EU partner countries, circularity is becoming a prerequisite for market expansion and a necessary move to ensure compliance with emerging international trade regulations and to secure high-standard export access, particularly to remain competitive within the EU's regulatory sphere.

However, field insights from frontier markets demonstrate that **price volatility remains a severe bottleneck**. Local secondary waste markets lack price transparency and operate on highly compressed commodity loops, with processing margins often too thin for operators to build cash reserves during peak times to survive lean periods. Substituting inputs with local alternatives promises lower costs for downstream users, but persistent challenges in quality control and domestic logistics frequently undermine the unit economics, causing these circular models to fail in practice.

To prevent these fragile unit economics from failing in practice, the narrative must change from viewing sustainability as a cost to viewing circularity as a driver of superior business models. Financiers emphasize that circularity must be grounded in economic reality: enterprises must see that they can generate higher margins through waste recovery and resource efficiency. When clients view **circularity as a business opportunity**, they can unlock competitive advantages. The goal is to move the conversation with their clients toward the economic point of view, **proving to clients that circularity is a vehicle for making money**, transforming resource saving and waste management into bankable revenue streams.

This commercial logic transitions naturally into broader portfolio resilience, turning circularity into a tool for systemic risk management. As noted above, *Bancolombia* highlighted that linear models are prone to sudden collapse during environmental shocks, leading to widespread loan defaults. **By adopting circular strategies**, **financiers create a risk insurance effect**, moving circularity into the core credit risk vertical to protect portfolios from climate-induced business failure.

Key Observation: Strategic entry into the CE can be ignited by opportunistic transactions that pave the way for more appetite to get into CE financing.

For many financial institutions, the initial step into CE financing happens through opportunistic, single transactions rather than a top-down corporate blueprint. Field observations suggest that for a few financial institutions (especially DFIs), the initial step into the CE is an entrepreneurial response to a specific, high-potential deal rather than a pre-determined strategy. Transactional based experiences already serve as invaluable real-world learning labs, allowing financiers to build experiential knowledge and witness the viability of circular models firsthand. This **could in turn increase their appetite** to invest in more CE projects, as some financiers confirmed.

A critical takeaway from field experience is that high sustainability impact acts as the primary justification for entering this new market. One DFI noted that if these specific CE investments had been traditional businesses, with the exact same risk profile and revenue projections, they likely would not have proceeded with the financing. It was the conviction that the **impact was exceptionally high** and aligned with the DFI's core development goals that tipped the balance. By serving as a prime example of high-impact financing, these deals prove

that the environmental returns of circularity can validate the investment case and justify the initial learning curve.

Key Observation: External actors can play an important role for "pull and push" to boost or divert financiers from their circular ambitions.

The path to a bankable circular deal is rarely walked alone, meaning that external actors play a powerful 'pull and push' role that can either boost or divert a financier's circular ambitions. This external influence operates as a double-edged sword: while targeted technical assistance and blended finance structures can successfully pull commercial capital into the sector, rigid international frameworks can simultaneously push financiers away from viable local solutions that do not fit high-level technical standards.

Looking at the positive pull dynamics of the market, external actors are essential in converting passive interest into active lending by providing the technical and financial de-risking infrastructure that commercial banks lack. A key example is the collaboration between a bank and the *Uganda Green Enterprise Finance Accelerator* (UGEFA). UGEFA identifies, selects and trains SMEs through business development programs to ensure they are investor-ready. To facilitate this, UGEFA introduced structured financial products, featuring **innovative de-risking mechanisms**, including **partial repayment grant** and reduced **performance-based incentives**. This external support transformed the bank's approach from unintentional lending, where green businesses were hidden within generic asset or contract financing, to an active exploration of green opportunities with dedicated financial products.

This capacity-building momentum can also be driven directly by strategic state support to align environmental goals with industrial resilience and national economic security. A notable example is the *German Federal Ministry of Research, Technology and Space* which provides the strategic and financial backbone for cross-border initiatives like the *EUREKA* Network Call on circular value creation. To ensure public tax capital strengthens the economy, the Ministry focuses on projects that bolster industrial competitiveness, against linear vulnerabilities. By financing large-scale research and innovation, the state supports the transition toward a holistic range of circular value chains, de-risking the high-innovation phase so that private capital can scale these systems.

Beyond direct innovation grants, these state-financier synergies are instrumental in expanding the scope of climate finance through high-level governance frameworks. The strategic direction of a DFI is often shaped by the management contracts negotiated with the state. For instance, a European DFI implemented a strategic push from its government to incorporate nature and ecological sustainability alongside climate finance. Under this broader umbrella, circular models qualify as contributors to nature-positive goals. By aligning with state-level priorities like the *OECD Rio Markers*, the DFI is able to include circular models as part of a formal, state-approved impact strategy, positioning itself to advance circularity whenever it aligns with the broader governmental agenda.

This state-driven alignment mirrors the core operational philosophy of the EU's Global Gateway strategy. By transitioning traditional development assistance into commercial co-investment models, this framework leverages public de-risking capital to actively bridge the infrastructure and technological gaps that typically hinder cross-border resource recovery. Operating as a geostrategic tool for mutual economic resilience, it transforms trade corridors into structured loops where high-value technology exports from industrial centers are directly matched with localized material aggregation and processing infrastructure in EU partner countries. This integration ensures public capital systematically shapes long-term supply chain security, proving to traditional financiers that international circular trade loops can function as highly stable, low-risk investment asset classes.

However, when these institutional frameworks are disconnected from local market realities, the push factor of external mandates can actively restrict local execution. External funding from LPs is often a prerequisite for scale, but it can act as a significant constraint when eligibility criteria fail to reflect the actual context on the ground. A notable example involves a commercial bank with a strong appetite for circular financing that is restricted by the rigid mandates of international funders whose low-interest credit lines are earmarked for established sectors like Renewable Energy. **This tension is driven by a fundamental divergence in priorities**: LPs often mandate a focus on upstream circularity, whereas a local bank's immediate bankable opportunities lie in downstream activities. Lacking the specific technologies to meet advanced upstream standards, financiers are forced to align their pipelines with easier-to-verify climate projects simply to secure the capital.

This challenge is further complicated by the fact that even major LPs are bound by the strategic indications of their own funding sources. A representative from an early-stage financing team within a DFI highlights that getting the parent institution as a whole into CE funding may be difficult due to the massive nature of their typical deals and the potential for complex government involvement in large-scale projects, which requires a cautious approach. Furthermore, their investment priorities are structured to align with national cooperation strategies outlined by their respective *Ministry of Foreign Affairs and Development*. Consequently, institutional entry is divided between the high-level policy mandates of the parent organization and the more flexible, opportunistic approach of its dedicated early-stage vehicle.

Key Observation: Standard fund structures create a time mismatch because their fixed, short-term horizons do not account for the longer periods that circular businesses need to mature.

A fundamental barrier in emerging markets is the mismatch between the early-stage financing needed by circular entrepreneurs and the rigid collateral requirements of traditional commercial banks. Across EU partner countries, a systemic lack of early-stage private capital forces most entrepreneurs to rely on bank debt. However, banks typically require proven business cases and hard assets as collateral, which early-stage startups usually do not possess. This creates a cycle where companies remain underfunded or rely exclusively on

grants, which can lead to a lack of financial discipline if the business model does not transition to commercial sustainability. Blended finance, partial guarantees, and technical assistance are essential to de-risk these businesses and help them reach the maturity needed to tap into commercial capital.

These upfront capital struggles are directly tied to the operational structure of closed-loop companies. Circular business models require heavy upfront pre-financing for reusable assets rather than generating immediate sales revenue. This is compounded by accounting frameworks that are not yet optimized for Product-as-a-Service or rental models, where the asset remains on the company's balance sheet as a liability/risk rather than being a one-time sale that generates immediate cash flow. These models are perceived as riskier because they require a long-term duty of care and maintenance, and many financiers are still trying to fit these unconventional cash flows into traditional credit systems.

When these companies look beyond commercial banks for equity, they hit another wall, as standard fund structures often operate on a 5-year investment and 5-year exit horizon, and are thus frequently ill-suited for the CE. One experienced CE financier pointed out that circular companies often require a longer maturation period to prove their business models. This creates a mismatch between the rigid horizons of linear fund structures and the actual time required for circular returns to manifest.

A critical barrier remains the defensive stance often taken by banking leadership and MDBs. Many banks claim to be open to support circularity, but state that they ‘do not see a positive business case’ suggesting that the failure lies solely with the entrepreneurs. However, other financiers argue that risk models and timeframes are outdated; if banks are unwilling to adjust their appetite and risk frameworks to account for a changing external environment, they remain effectively closed to circular ventures. The challenge is to actively reform internal risk models to recognize circular value by **stopping both: underestimating the systemic risks of business-as-usual while overestimating the risks of novel circular solutions.**

In contrast to this passive approach, other financial institutions are treating the design of new financial products as strategic. *Bancolombia*, for instance, is currently in an active reflection phase to develop a new suite of investment products specifically for circular businesses. Recognizing that circularity requires different maturities and risk associations, the bank is scouting global best practices to identify which instruments have successfully supported the transition elsewhere. By proactively seeking to match financial products with the unique operational needs of circular business models, such institutions are positioning themselves as market makers rather than mere observers.

The deep technical challenge of reforming these internal risk models is heavily tied to a historical data gap. In this context, the ***Kopgroep Circulair Financieren*** launched a *Circular Risk Scorecard* designed to train risk and relationship managers at major banks, to evaluate circularity during credit applications. However, changing a risk model requires 7-10 years of data. In response to this data lag, the group is now evolving the tool into an ***Investment***

Opportunity Scorecard (developed by *Copper8*). Reframing the narrative from risk to opportunity, this dynamic revision tool is used throughout the investment cycle to track a company's trajectory, shifting the framework from a static pass/fail check to a long-term roadmap for circular value creation.

Circularity is at an inflection point: while Europe remains extremely dependent on external materials, the scarcity risk is becoming increasingly visible. Currently, the abundance of primary resources in many markets often makes extraction more attractive than circular practices like recycling or life extension. However, financiers warn that as resources diminish, the essence of recycling before disposal, trying to reduce resource consumption, or extending the life of materials will become unavoidable. They argue that the best approach is to aggressively develop circular pipelines and then spend the necessary time explaining the business case to financial institutions. From this perspective, banks are seen as the most powerful partners to help transition a landscape that remains, for now, almost entirely linear, because they touch almost every segment of the economy.

Recommendations and actionable pathways

A clear signal emerged from the field: financial institutions are ready to integrate circularity not just as a niche sustainability concept, but as a core investment strategy. The following recommendations provide a practical roadmap to embed existing circularity frameworks directly into daily operations, build knowledge-sharing infrastructure, and equip teams to structure deals with confidence.

1. Embed circular frameworks into daily operations

Financial institutions must transition from theoretical alignment to active deal-level screening by leveraging operational, publicly available global standards to guide due diligence, portfolio screening, and baseline metrics:

- **IFC Harmonized Circular Economy Financing Guidelines:** Frontline staff could deploy the IFC's 3-step eligibility decision tree to verify waste-prevention contributions, isolate eligible loan volumes, and apply standard KPIs across Value Hill categories (e.g. recycled input weight, prolonged asset lifespans, and diverted landfill tonnage).
- **EU Taxonomy:** Relationship managers can also utilize the explicit technical screening criteria across its 14 distinct circular categories to execute portfolio-wide reporting with regulatory confidence and lower investment risk for cross-border trade corridors.
- **Circular Risk & Investment Opportunity Scorecards (Kopgroep Circulair Financieren / Copper8):** Teams should refer to the *Circular Risk Scorecard* during initial credit applications to isolate resource risks, while deploying the *Investment Opportunity*

Scorecard as a dynamic revision tool throughout the entire loan tenor to track long-term circular trajectory and value creation.

2. Deploy advanced technical assistance & target-driven pilots

To maximize market impact, specialized capacity-building must extend beyond commercial banks to DFIs, investment funds, family offices, and foundations.

- **Tailored technical training:** Programs must use pipeline immersion and hands-on case studies to help analysts look beyond theory and identify profitable reuse, closed-loop, or waste-processing models. While some institutions favor an *external co-creation approach* to learn unfamiliar methods, others prefer *internal resource allocation* to integrate circular models into existing credit analysis. C-level remains vital to shift this training from a "nice-to-have" to a mandatory corporate process.

- **Text-filtering portfolio scans:** Institutions can immediately launch low-barrier pilots by feeding explicit global circular criteria into retrospective text-filtering scripts. Scanning active commercial credit books for keywords like *component life-extensions*, *repair services*, or *material valorization* allows banks to instantly identify pre-existing circular assets hidden under generic financing labels.

3. Establish collaborative platforms & data repositories

To eliminate persistent knowledge gaps and data fragmentation, the sector requires structured platforms where founders, corporates, and financiers map ecosystem roles and share real-world business models.

- **Global network anchors:** Financiers should align with existing networks such as the ***UNEP Finance Initiative Network*** for portfolio target-setting, the ***Circular Economy Finance Group*** for cross-border reporting metrics, and the ***Global Circularity Protocol for Business*** **(WBCSD/UNEP)** to harmonize definitions.

- **Centralized secure data repositories:** Long-term support must focus on building a secure infrastructure where financiers deposit anonymized business cases. Establishing a robust statistical baseline of loan default rates for circular models allows the market to quantify risks with empirical confidence.

- **Map flexible fund architectures:** Platforms should actively utilize international frameworks like the **IFC's Circular Economy Investment Tracker** to map capital flows in material-intensive sectors (packaging, textiles, electronics). This data baseline helps prove long-term commercial exit potential to institutional backers and structures products matching longer circular growth paths.

4. Translate material flows & build predictive risk simulators

- **Country-specific market intelligence briefs:** To unlock private capital in EU partner countries, investors require granular summaries that translate physical material flows into predictable financial projections, explicitly unpacking local supply chains, revenue structures, operational risks, and shifting regulatory landscapes.

- **Predictive portfolio stress-testing simulators:** To bypass the traditional 7-to-10 year historical data lag, joint research initiatives across academic bodies, industry experts, and financial networks should co-develop predictive risk simulators. Mathematically demonstrating the resilience of circular assets against simulated material shocks, virgin commodity price spikes, and environmental taxes gives risk managers the empirical validation needed to update outdated pricing frameworks before resource scarcity becomes a crisis.

3.2 Measurement and reporting standards

The maturity of the circular finance market is fundamentally tethered to the precision, accessibility, and regional adaptability of its measurement frameworks. While the transition away from linear investment paradigms is underway, a deep structural friction persists between high-level regulatory mandates and the operational realities of frontline capital deployment. This section explores how financial actors navigate the current metrics landscape, highlighting a pronounced shift from fragmented, narrative-based circular intent toward bottom-up, practitioner-led standardization.

Key Observation: Detailed frameworks like the IFC Harmonized CE Finance Guidelines and the EU Taxonomy represent milestones that will be more widely adopted as market standards as they become more granular and sector-specific.

Released in May 2025, the *IFC Harmonized CE Finance Guidelines* is a sector-agnostic framework that can be used globally to drive market convergence to a common understanding of what qualifies as circular economy finance. While the IFC validated this framework by mapping 60 historical portfolio projects between 2015-2025 across 30 countries that meet these circularity criteria, the active market deployment is in its early stages. Frameworks like these guidelines have laid crucial groundwork to identify circular deals, but scaling these tools across the wider market naturally takes time. As a whole, the industry is still navigating a learning curve. Because **circularity looks so different from one sector to another**, financial teams everywhere are eager for even more granular guidelines and concrete baseline targets, such as clear percentages for recycled content, to help them easily evaluate and fund circular deals.

Beyond guidelines, the IFC serves as the secretariat for an informal working group of MDBs specifically focused on the CE. A primary focus of this group is determining the extent to which diverse institutions adopt harmonized definitions and reporting standards. These institutions operate at different stages, with European MDBs already reporting on their portfolios using the EU Taxonomy, and the group provides a critical forum for bridging these differences. The IFC views the EU Taxonomy as highly relevant for their European operations and for clients exporting to the EU, explicitly seeking to align their guidelines with existing definitions while maintaining a focus on the needs of developing economies.

Surprisingly, a noticeable execution gap persists on the ground where the EU Taxonomy is rarely cited as an operational tool. Field observations indicate it is viewed as a guiding document rather than an implementation standard, often perceived as too rigid or disconnected from (non-European) market realities. While the taxonomy provides strong motivation, transparency and a common dictionary for the CE, its practical application is hampered by overly restrictive criteria in certain sectors where the bar is set too high. This prevents many genuine CE initiatives from being tagged as circular because they cannot meet every requirement, leading to reporting volumes that are far more conservative and restrictive than those of other market actors.

The EU Taxonomy's power lies in its ability to create a common language and to be copy-pasted worldwide once a standard is set. As a contrasting testament to its long-term potential, a commercial bank views it as a critical global benchmark, not just to indicate market standards for Europe. When the regulation is granular and sector-specific, it effectively ends the debate on "what is circular", providing a minimum bar for clients to clear and showing how to measure and report on circularity progress. However, where the Taxonomy lacks granularity or is not well-thought-through, it is seen as overly complicated, showing that its success as a global standard is directly tied to its technical precision.

This standardization quest also exposes thematic silos. While the EU Taxonomy includes wastewater and energy, the IFC guidelines strictly limit their scope to organic and inorganic material resources, deliberately excluding water and energy to avoid overlap, and to bypass the carbon-lock-in risks of waste-to-energy projects.

To overcome technical CE jargon, financiers strategically reframe circularity, **substituting complex terminology with pragmatic concepts** like resource efficiency, lifecycle value analysis, regenerative agriculture, and industrial symbiosis. This reframing helps financiers bridge the gap between abstract guidelines and the practical, value-driven needs of clients. Similarly, investors **engage regulators and central banks by reframing circularity around resilience**. Demonstrating that closed-loop models reduce resource dependency and combat supply chain volatility has become a highly effective entry point to secure high-level buy-in from regulators and traditional LPs, such as DFIs.

As these definitions mature, an internal debate has surfaced regarding the social dimension, questioning whether circularity explicitly includes social equity or if the 2 remain

distinct objectives. One institution uses the broader term 'impact' specifically because they struggled for a long time with the fact that a strictly technical circular definition did not naturally account for social aspects. For some practitioners, the term 'circularity' feels too narrow to capture the holistic changes they aim to achieve. One foundation addresses this intersection through **inclusive circularity**, emphasizing that technical loops cannot be separated from the people they affect. Global brands focus heavily on securing a reliable, specific volume of high-quality feedstock, but their current solutions lean heavily on high-tech sorting infrastructure like AI scanners, risking worsening inequality. In major textile hubs, a sophisticated informal economy of waste pickers already manages manual material collection using deeply specialized skills to identify material blends by touch. Because the vast majority of consumer waste still ends up in landfills, a just transition must be intentionally built into the sector's strategy from the very beginning. Without explicit strategies and investments to elevate and integrate this invisible informal workforce, automated facilities risk cutting off the primary income streams of the people who have kept secondary material markets operational for decades.

Key Observation: In anticipation of formal and granular regulatory standards, forward-thinking financial actors are taking a proactive stance to establish unified, practitioner-led frameworks to guide immediate circular investments.

The financial sector is moving away from fragmented interpretations of circularity toward unified, global standards. There is a bottom-up alignment among lead financiers to proactively define circular business models and provide immediate operational clarity. A key example of this proactive approach is found in the Netherlands, where *Invest-NL* leads the **leadership collective in circular financing** (***Kopgroep Circulair Financieren***), a public-private partnership that is working to align the financial sector. Recognizing that hundreds of different definitions create market paralysis, this collective, which includes major Dutch senior banks, recently published their unified ***Circular Finance Guidelines*** (March 2026). By introducing a practical decision tree for relationship managers, the group is providing the commercial front-line with the tools to distinguish between circular and non-circular deals today, preparing a system that they will eventually present to national governments and the *European Commission*. One interview partner explicitly stated the urgency: if the financial sector waits for formal regulation to catch up, the transition will happen too late. The banking sector should thus drive the standards they intend to follow.

Simultaneously, European banks are scaling these efforts through the *Circular Economy Finance Group* (CEFG). This cross-border initiative between Dutch and UK banks currently develops a global reference framework for reporting to address the significant discrepancies in how different institutions report on circularity. It was noted that **defining what is circular (or not) is not the hardest part**. Instead, **the main challenge lies in the transparency required**, specifically convincing financial institutions to audit and share their datasets. To overcome this, the CEFG is building a global coalition aiming for an advisory body that includes UNEP FI (with its network of over 140 financial institutions), the WBCSD, and the IFC. Supported by these

organizations, the initiative seeks to transform circularity from a fragmented interpretation into a standardized, high-integrity asset class.

This banking momentum runs parallel to the development of the Global Circularity Protocol for Business, coordinated by the WBCSD in partnership with the UNEP-hosted One Planet Network. This protocol serves as a science-based framework to manage circular performance across climate, nature, social, and financial outcomes, drawing on policy advice from MDBs (AfDB, IDB Invest, IFC), global ministries (Japan, Brazil, Ghana, Netherlands), and international research bodies like ISO and Chatham House.

Faced with an expanding array of frameworks, a pragmatic segment of financiers deliberately avoids definition debates, choosing instead to wait for formal direction from national governments to guide their on-ground implementation. This underscores the critical need for financial institutions and regulators to work hand in hand, ensuring that bottom-up market frameworks seamlessly align with public policy as formal standards stabilize.

Key Observation: The “tropicalization” of international frameworks is needed.

Universal baselines do not fit local conditions, a one-size-fits-all approach struggles to account for regional differences in regulation, energy mixes, and resource availability. Global standards must be adapted to fit specific geographic and social realities.

***Circulate Capital*, as one of the first specialized CE focused investment firms, executed this regional adaptation out of operational necessity** when launching its South/Southeast Asia fund in 2018. Lacking actionable local models, they built a proprietary impact management and tracking system to accurately measure physical flows, localized carbon accounting, as well as indicators for social and gender equity.

***Bancolombia* similarly bridges global standards and local market realities through a process termed ‘tropicalization’**. To eliminate internal credit ambiguity, they developed their own taxonomy based on global standards, but adapted to local material streams and energy mix. This tropicalized model uses KPIs for **6 specific, bankable business models:**

1. **Circular Design and Production:** Focusing on the upstream phase.
2. **Circular Models:** Merging Product-as-a-Service with Life Extension.
3. **Circular Enablers:** Financing the *how*, including technology or digital product passports.
4. **Revalorization and Recuperation:** Transformation of residuals and waste-to-value.
5. **Circularity of Water:** A critical local inclusion often missing from other taxonomies.
6. **Circular Energy:** Focusing on bio-products and waste-to-gas-to-energy solutions.

Tropicalization also extends to social standards. Supported by the *IKEA Foundation* and *The Circulate Initiative*, the **Harmonized Responsible Sourcing Framework** enables plastic value chains in emerging countries to meet EU regulations (e.g. CSDDD). By harmonizing the

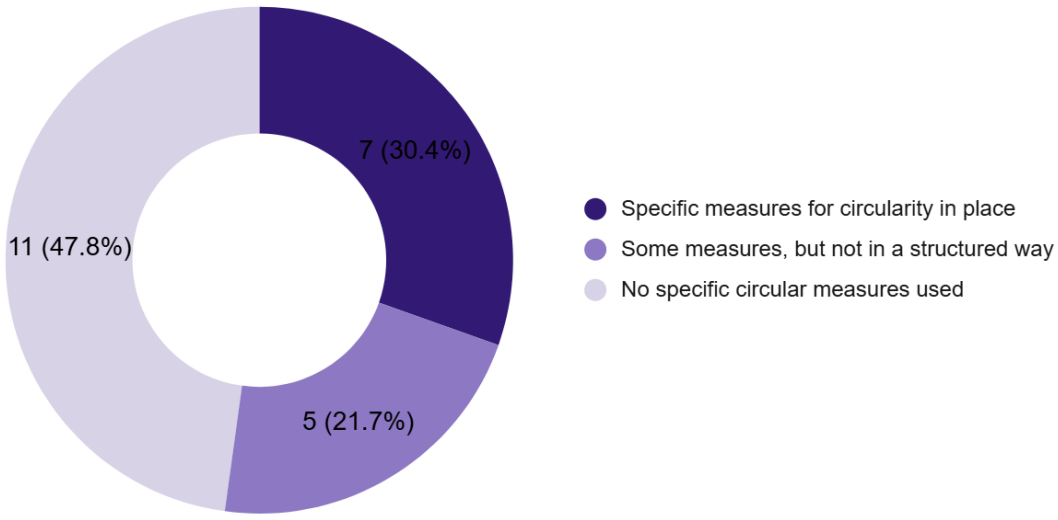
value chain from global beverage giants down to informal waste pickers, it transforms a fragmented sector into an ethical, traceable component of the global CE.

Despite these successes, an intentionality gap limits marked-wide deployment. Most financial institutions lack specific quantitative targets for circularity, treating it merely as a sub-topic or a mechanism to achieve wider ESG targets. Even at the highest levels, circularity often lacks a standalone ledger. For example, the EIB invested €5.1 billion in over 150 circular projects (2020–2024) without having a specific CE-per-se target, operating instead under its broader Climate Bank Roadmap mandate (60% green lending volume). However, ambition is accelerating. **The *Joint Initiative on Circular Economy* (JICE)**, uniting the EIB and 6 major national promotional banks in Europe (BGK, CDC, KfW, ICO, CDP, Invest-NL), originally set a €10 billion target for 2025, which they increased to €16 billion for 2026, and remarkably surpassed by the end of 2025. This proves that aligned senior banks can exponentially scale capital deployment, though stricter technical lenses remain necessary to distinguish genuine circularity from e.g. general energy transition projects.

Key Observation: Measuring circularity and defining standard metrics that help compare different businesses across different sectors is extremely difficult.

A recurring challenge across field research is the extreme difficulty in qualifying circular businesses and measuring progress. While some investors use specific metrics (carbon footprints, landfill diversion, recycled volumes), many lack specific CE-related indicators. Reporting requirements are also driven by the needs of individual funders with data points being customized to satisfy specific investor mandates; it remains exceptionally difficult to aggregate, compare, or add these metrics up across different portfolios and institutions.

Fig. 4: Measurement of circularity across interview participants' organizations



Source: Interview insights (March-May 2026)

This reporting friction stems from several core market barriers:

- **The under-the-radar effect:** Because circularity is a systemic approach that varies by sector, many circular initiatives are categorized under generic asset or contract financing. Data is not tagged as CE, preventing institutions from recognizing their true circular portfolio depth.
- **The "theme within a theme" dilemma:** Concepts like reuse or bio-based materials cannot exist in a vacuum; they must attach to specific verticals like agriculture or energy. Consequently, market actors frame their work around standard sector lines rather than CE, narrowing public perception down to basic waste management.
- **Lack of granular data filters:** Major institutions often rely on macro-indicators (e.g. material consumption per capita) that include fossil fuels, crediting resource reduction to climate mitigation efforts rather than circular innovation.

In the absence of sector-specific metrics, credit underwriting teams frequently fall into the proxy metric trap. Because circularity is often treated as a subset of broader climate goals, circular ventures are measured using traditional KPIs, forcing many financiers to default to CO2 reduction. While circular initiatives lower Scope 1, 2, or 3 emissions, the final metric recorded is the carbon equivalent, not the circularity of the process. This reliance fails to capture regenerative potential, making it structurally harder for circular businesses to compete for portfolio entry against purely low-carbon players.

Technical granularity can reveal unexpected sustainability vs. circularity trade-offs. One interviewee shared an example of a modular housing development designed for rapid construction. The deal solved a critical social crisis, reduced costs, and avoided the massive carbon footprint of concrete. However, a deep technical audit revealed that the modules were composed of polyurethane, a component with no safe end-of-life disposal solution. Despite the immediate environmental and social wins, the project was rejected by the investment fund, exposing the challenge of determining "how circular is circular enough".

This tracking deficit is compounded by an evidence deficit and technical readiness hurdle. Many circular ventures struggle to reach technological readiness or fail to secure anchor clients early enough to showcase volume. Since these businesses bridge technology and physical infrastructure, initial testing is too high-risk for commercial equity, making it a critical area where DFIs and catalytic funders must step in to de-risk the technology, launch physical pilots and first commercial customer deployments before it goes to market.

The absence of harmonized KPIs is also a direct barrier to creating impact-backed financial instruments. Building circular bonds or specialized credit lines requires pooling companies that produce similar, measurable impact. This is straightforward for downstream activities like PET recycling, but innovative upstream ventures (such as Product-as-a-Service models) are harder to consolidate under a single metric. Currently, **circularity is measured almost exclusively at the individual company level**, making it nearly impossible to compare,

for example, a circularity enabler (digital platform) with a value recovery business (recycling infrastructure) within the same reporting standard.

The **absence of universal thresholds**, such as minimum percentages for recycled content, further complicates this, leaving financiers to choose between simplified traditional metrics that allow for portfolio-wide comparison or complex, sector-specific KPIs that are difficult to aggregate for institutional reporting. Relationship managers are rarely environmental engineers, so metrics must be simple enough for a non-specialist to evaluate during the credit scoring process. However, there is a widespread lack of basic data availability (e.g. energy, water, fuel consumption) which represents a challenge that is not exclusive to emerging markets. As a consequence, some financiers choose to leave the KPI definition entirely to the borrower, which results in circularity being described in narrative form as an intent, rather than being anchored to a quantitative performance requirement.

Recommendations and actionable pathways

The market is actively developing its own measurement language. Practitioners are already translating circular intent into context-specific indicators. In order to accelerate this momentum, existing frameworks have to be more granular, locally grounded, and directly integrated into financing decisions so circularity can be tracked, compared, and scaled.

1. Evolve taxonomies into frontline operational assessment tools

Standard-setters and financial institutions should transition taxonomies from compliance checkboxes into active deal-structuring mechanisms, using the following strategies:

- **Co-design bottom-up industry labs:** Facilitate structured, collaborative workshops bringing together transitioning corporations, pioneering financial institutions (e.g. Invest-NL, Rabobank, EIB) and framework developers to rewrite restrictive eligibility criteria. Using tools like the *Investment Opportunity Scorecard*, these labs can score progress from basic recycling to systemic eco-design over the investment lifecycle.
- **Establish performance and intensity thresholds:** Standardize eligibility targets linked to production output (e.g. % of recycled content by weight or specific material recovery rates). Integrating these baselines into taxonomy updates provides the precision needed to distinguish circular innovation from basic resource efficiency.
- **Incorporate explicit end-of-life standards:** Deepen granular sector criteria within framework revisions by explicitly requiring large-scale infrastructure investments to hold pre-executed, legally binding contracts specifying a 100% material recovery or reuse pathways for complex system parts upon decommissioning. Integrating explicit

documentation requirements for composite materials or specialized electronics ensures massive investments do not create future waste liabilities.

- **Establish a formal "transitioning to circularity" category:** Create a structured transition category to recognize, validate, and legitimize incremental industrial shifts. Modeled after new frameworks like the UK's *Transition Finance Classification System*, this mechanism tracks and channels capital based on verified corporate transition plans and explicit CAPEX allocations rather than rigid binary rules.

2. Tropicalize frameworks for EU partner countries and local market realities

To prevent rigid global standards from becoming capital barriers, global frameworks must:

- **Design localized taxonomies and field guides:** Financial institutions and regional bodies (such as EU, ACEA) should adapt global guidelines, following models like Bancolombia's. This involves narrowing down KPIs to targeted bankable categories.

- **Introduce social traceability:** Align credit disbursements with the progressive formalization, human rights compliance, and fair pricing of informal waste picking. Utilizing frameworks like the *Harmonized Responsible Sourcing Framework* protects livelihoods while securing ethically traceable supply chains for industrial clients.

- **Trace resource origination to manage informal and transboundary ESG risks:** Implement robust baseline data collection to track material sources. Gaining value-chain transparency validates both the physical circularity and ethical integrity of raw materials sourced from complex cross-border or informal local markets.

3. Quantify linear risks and integrate empirical default-reduction metrics

Underwriting frameworks must move beyond broad qualitative goals to map physical resource exposures and leverage financial risk data:

- **Deconstruct portfolios by specific material variables:** By mapping specific corporate dependencies on critical raw materials, logistics resilience, and resource scarcity, risk managers can quantify linear exposures and identify borrowers vulnerable to global commodity shocks.

- **Integrate empirical de-risking data into credit pricing:** Anchor risk models to econometric data, such as the *Intesa Sanpaolo, Bocconi University and EMF* study (see annexes) demonstrating that higher circularity statistically correlates with lower default probabilities. Risk analytics teams can incorporate these empirical default reductions into internal validation to lower risk premiums for circular clients.

- **Fund region-specific econometric studies:** Support dedicated research within EU partner countries to build local default-reduction datasets. Region-specific risk data is a

vital prerequisite to catalyze long-term structural shifts in fund horizons, capital allocations, and patient credit architectures.

4. Decouple carbon proxies and aggregate upstream portfolios

To prevent circular ventures from losing capital to purely low-carbon industrial players, measurement frameworks must capture full resource-loop value:

- **Isolate regenerative metrics from carbon-only indicators:** Explicitly measure variables like product longevity, modular design, secondary material input ratios, and Product-as-a-Service retention rates, to capture the real impact of circularity.
- **Apply qualitative scoring frameworks for upstream performance**.
- **Consolidate data for portfolio-level systemic impact:** Aggregating data makes circular investment packages significantly more attractive to institutional liquidity.

3.3 Regulations and policy enforcement

The global transition toward a CE is bound to the evolution of regulatory frameworks, yet the friction between policy design and enforcement remains a critical bottleneck. Significant regulatory momentum is observed in emerging markets regarding *Extended Producer Responsibility* (EPR). Countries like India are implementing ambitious, mandatory recycled content requirements for packaging (e.g. 30% recycled content for rigid plastics in 2026, rising to 60% in a few years), driving commercial rush toward recycled materials. Similar systems were announced in Brazil, Colombia, and Mexico. However, financiers and ecosystem actors note that while ambition is high, implementation remains difficult due to the complexities of interacting with government bodies at different levels.

Key Observation: Regulation is not considered a major push.

Field observations indicate a chicken-and-egg tension between business motivation and legal push. CE pioneers argue that policy and business support must go hand-in-hand to aggregate secondary material streams. However, policy moves slowly, taking years for standards to trickle down to local investments. Consequently, while MDBs connect business reality to policy roadmaps, most market actors focus on immediate commercial opportunities without waiting for legislative shifts. Few financiers cited national laws as the primary reason for their CE engagement, framing regulation as a future consideration rather than a present-day operational requirement.

However, the pull of international markets is rapidly shifting this cautious posture. While robust CE-specific regulation is lacking in many emerging markets today, the global regulatory

trajectory is unmistakably increasing. This is fueled by international trade standards, especially from the EU, positioning circularity as a strategic necessity to ensure clients remain compliant with European market entry requirements.

A distinct internal momentum builds when local governments demonstrate a genuine political appetite for circularity. When public sector commitment aligns with institutional intent, it can actively mobilize the financial sector from within. A prime example of this internal catalyst is the ***Africa Circular Economy Facility*** (ACEF) at the AfDB. The facility was born from a hand-in-hand realization: as African governments showed increasing appetite for CE as a green growth strategy (evidenced by the creation of the government-alliance, the *Africa Circular Economy Alliance*), the bank recognized the need for a formalized support structure for both sovereign and private sectors. Operating as a trust fund, the ACEF was explicitly designed to raise awareness and "get the ball rolling" within the bank's portfolio, acknowledging that without such special funds to support circular businesses and value chains, the topic of circularity would remain sidelined by more traditional lending practices.

Key Observation: Circular business models are affected by the fragility of international supply chains and external turmoils.

The CE is highly sensitive to global supply chain disruptions and energy price volatility. In the EU, virgin materials are often cheaper than recycled alternatives, leading many circular startups to go bust before securing off-takers. While regulations like the *Packaging Waste Directive*, the *Critical Raw Materials Act* are coming, rules remain scattered, and cross-border waste definitions differ, preventing the scale necessary for efficient recycling.

To unlock change, regulations must explicitly define which material loops to close on a regional level. Generic recycling percentages fail because cheap maritime shipping allows outside markets like China to absorb this unmanaged trash. For instance, sending black mass battery waste to China costs less than building the entire circular infrastructure from scratch in Europe. Stopping these leaks requires targeted regulations that dynamically adapt to material characteristics: high-volume streams like plastic packaging need smaller geographic footprints, while scarcer commodities like lithium require larger regional boundaries to aggregate processing volumes. Furthermore, **mandatory upstream recycled content faces border protection hurdles**. If European companies are forced to increase product prices to accommodate recycled content while competing with unconstrained outside imports, they struggle to find a viable market. Without a unified European market for secondary raw materials that captures externalities in the price, the competitive landscape remains tilted toward the linear status quo.

Key Observation: There seems to be a Eurocentric approach to circularity which risks ignoring the reality of global supply chain linkages.

The reliance on international trade drivers highlights a deeper, systemic issue within global policy discussions. The current dialogue in Europe around CE operates within a regional paradigm that frequently omits the perspective of actors situated at the critical entry and exit points of global value chains. While policy discussions in consumption-heavy regions focus heavily on mid-tier domestic technicalities, such as material metrics, resource efficiency, labeling or localized recycling and recovery infrastructure, they underrepresent primary raw material producers at the absolute beginning of the chain, as well as the processing hubs and secondary markets handling materials at the end. To build functional, closed-loop systems, frameworks must expand beyond localized boundaries and integrate voices from both ends of the international value chain.

For example, current European EPR frameworks operate on a flawed geographic boundary. When consumption occurs in Europe, consumers pay a regulatory premium to fund end-of-life handling, but post-consumer goods are exported to secondary markets and landfills in countries such as Ghana or Chile. Because the collected EPR funds remain legally tied to domestic organizations within European member states, zero capital is funneled to the destination countries actually dealing with the physical waste burden. For EPR to serve as a genuine tool for accountability, the financial mechanism must be redesigned to follow the global footprint of the material lifecycle, reallocating funding to build recycling infrastructure in the global regions where the products ultimately end up.

This structural disconnect is particularly acute in highly globalized industries like textiles, where European consumption is inherently tied to international supply chains. When European industry actors design circular frameworks or prioritize capital allocation toward localized technological infrastructure, they frequently fail to assess how these shifts alter global market dynamics or consult the external actors impacted by these changes. Because a significant volume of secondary materials and post-consumer textiles generated within Europe flows into secondary markets and processing hubs across South Asia, West Africa, or Latin America, European shifts directly impact upstream production and downstream processing capacities.

This friction is intensified by transparency frameworks. A strict regulatory push acts as an effective market mover within Europe, but risks heavily penalizing external supply chains. Even corporations struggle with severe data scarcity and compliance overruns to satisfy new reporting mandates. For upstream suppliers located in EU partner countries, these complex data requests present a nearly impossible administrative and financial hurdle.

As a consequence, if circular solutions are designed within a closed European bubble, market actors risk disrupting established secondary economies abroad and inadvertently undermining the livelihoods of vulnerable populations. Without expanding the scope of circular frameworks to

intentionally integrate cross-border social equity and the mechanics of a global just transition, European interventions will continue to pass structural risks down the value chain rather than building a functional, systemic global loop.

Key Observation: In frontier markets, the primary policy bottleneck is a severe gap in enforcement capacity rather than a lack of regulatory frameworks.

Field data indicates that the primary policy bottleneck in emerging markets is not necessarily a lack of regulatory frameworks, but rather a severe gap in enforcement capacity and the potential politicization of existing rules. Instead of funding the creation of "black box" policies that rarely get off the ground, resource allocation should focus on strengthening regulatory enforcement and preventing policies from being exploited for corrupt purposes. For example, the *Nigerian Circular Business Platform* collaborates with the EU on critical files like EPR for plastic waste and off-grid e-waste regulations, but the implementation remains highly fragmented. The strategic priority must be building the operational capacity of local regulators to enforce existing rules, not drafting new idealistic laws, so that they can manage informal sector dynamics, and clean up administrative blockages that stall actual marketplace compliance.

Recommendations and actionable pathways

Evidence from the field shows that the right regulatory signals, even in early form, can fundamentally shift how financiers think and act. From mandatory targets unlocking new lending criteria to local government commitment catalyzing institutional engagement, this section explores how policymakers and financial actors can work together to build the predictable, long-term market conditions that CE investment needs to thrive.

1. Use mandatory, output-linked targets and circularity as strategic priority

Policymakers and financial institutions must transition from voluntary commitments to legally binding targets that create predictable compliance pathways:

- **Implement legally mandated targets for material performance percentages:** Targets for recycled content, e.g. in packaging, create clear compliance pathways that can be directly reflected in bank lending criteria. Setting annual KPIs aligned with long-term goals allows commercial risk teams to integrate these targets into corporate lending rules, giving institutions the operational visibility needed to fund compliant businesses.
- **Use the EU Taxonomy as a global common language:** Mandating corporate disclosures on specific circular products and related CAPEX or OPEX forces portfolio-wide data visibility. Precise sector-specific indicators allow private financiers to

define market size, evaluate pipelines, and calculate required investment volumes for industrial transitions.

- **Promote high-level recognition of circular business pathways:** Governments should formally recognize the CE as a strategic priority alongside climate change to resolve budget competition with established focus areas. Providing policy cover allows DFIs and institutions to reallocate structural resources and create dedicated circular financial products, drawing inspiration from dedicated initiatives like the German Federal Ministry's €25 million Circular Value Creation Call.

2. Deploy structured value-chain compliance workshops along supply chains

To bridge the gap between complex trade rules and small, informal, or remote initiatives:

- **Implement dedicated compliance workshops along global value chains:** Modeled after *The Circulate Initiative* and the *IKEA Foundation's Harmonized Responsible Sourcing Framework*, interactive workshops can guide local recycler networks through international sourcing rules, protecting human rights and formalizing waste-picker networks without imposing immediate rigid tax burdens.

- **Connect major consumer buyers with local operators:** Linking international brands with local suppliers helps establish traceable material pricing and provides essential hardware support (safety gear, machinery). Structuring these workshops to connect with growth-stage DFIs ensures compliant enterprises are automatically routed into pre-committed financing pipelines for long-term equity or debt.

3. Promote fiscal alignment across global value chains

Policymakers can deploy targeted fiscal tools to eliminate the artificial price advantage of linear models and bridge the "green premium" gap:

- **Introduce targeted VAT incentives:** Apply reduced VAT rates (e.g. 12% instead of 25%) on repair services and secondary materials. Modeled after policies in Sweden, this mechanism lowers reverse-cycle costs and creates a direct price advantage that encourages major brands to move away from single-use packaging.

- **Execute labor-to-resource tax shifting (The Ex'tax Model):** Support revenue neutral tax blueprints that lower payroll taxes on labor while increasing taxes on virgin natural resources and carbon emissions. This directly rewards labor-intensive circular operations like refurbishment and recycling by reducing operational costs.

- **Synchronize circular mandates across local and imported goods:** Apply circular expectations consistently across domestic production and international imports.

Matching compliance mechanisms prevents strict local regulations from accidentally penalizing domestic manufacturers against cheaper, unconstrained foreign imports.

4. Streamline administrative barriers and establish safety standards

Removing bureaucratic friction and verifying material safety are crucial to build market trust:

- **Fast-track permitting and licensing procedures for secondary materials:** Create accelerated approval pathways for circular projects, particularly in high-impact sectors like construction where traditional linear techniques face fewer administrative delays. Streamlining permit protocols prevents bureaucratic drag from stifling circular innovation.
- **Formulate rigorous safety and quality standards:** Establish strict processing benchmarks for secondary raw materials to protect public health and build institutional trust. Rigorous testing (e.g. verifying that recycled plastics are free of toxic residues before use in food packaging) secures long-term market confidence in circular products.

3.4 Circular business model support and pipeline-building

Field research demonstrates that circularity is already a proven, bankable reality: every interviewed financier, regardless of their formal strategy, can identify at least one circular asset within their current portfolio. Across diverse sectors and geographies, from closed-loop B2B glass bottle return schemes in Rwanda to rice-husk-ash chemical recovery in Bangladesh, decentralized wastewater treatment in Kenya, and incentive-based packaging redesign in Brazil, these real-world transactions establish a tangible baseline of financial and operational viability. However, moving from these isolated success stories to a continuous, scalable pipeline requires moving beyond passive deal sourcing. Financiers must actively act as strategic architects, deploying targeted technical assistance, blended de-risk mechanisms, and tailored debt structures to transform early-stage circular innovations into investor-ready commercial ventures.

Key Observation: Financiers have different opinions on whether they should finance circular-born startups vs. the circular transition of large corporations.

A strategic divergence exists regarding pipeline-building: some financiers advocate **scaling companies that are circular from the start**, while others believe the greatest systemic impact comes from helping **their existing client base in their circular transition**.

Supporting circular-born ventures avoids the massive internal resistance typical of large linear firms attempting a total overhaul. For many financiers, startups and informal entrepreneurs in sectors like recycling or waste-to-energy offer an accessible entry point. Providing financial literacy and technical training empowers these actors to scale up.

However, relying solely on early-stage startup ecosystems creates a mismatch with institutional capital requirements. Accelerators often fail to produce post-revenue companies with the track record required by DFIs. Long-term viability depends on verified market demand, which faces severe friction in price-sensitive regions where artificially cheap virgin materials create a structural "green premium".

To achieve rapid, vertical scalability, other institutions target established corporates. *Bancolombia*, for example, focuses on corporate innovation across 5 key sectors (plastic packaging, textiles, construction, coffee, cocoa) where existing market reach enables swift, widespread adoption. Working with large corporates presents distinct balance-sheet dynamics: major companies often execute early circular transitions incrementally using internal cash flow rather than seeking bank debt. Yet, even motivated corporates face hurdles like unharmonized cross-border standards or volatile offtake markets. To bridge this gap, facilities like the AfDB's ACEF fund feasibility studies for large-scale industrial transformations, such as recycling textile waste into virgin-quality materials, to ensure commercial viability before deployment.

Key Observation: The viability of CE financing is informed by a venture's maturity, requiring an alignment between its operational stage and the risk appetite of specific capital providers.

The feasibility of CE financing is fundamentally tied to a venture's maturity; a mismatch between high-risk innovation and conservative risk profiles remains a primary driver of deal rejection. Startup priorities must evolve across growth stages, from technical validation and frugal innovation to robust revenue logic and operational excellence. Consequently, funding expectations vary: early-stage ventures rely on grants and development finance to prove concepts, while mature companies must demonstrate performance parity with linear counterparts to secure commercial debt and private equity. Unlocking capital requires aligning business milestones with the specific risk profiles and track-record requirements of different capital providers.

However, a systemic challenge persists in many EU partner countries: a lack of continuous, sequenced entrepreneurship support. Local ecosystems frequently fragment into redundant, overlapping programs driven by shifting donor funding cycles. A more effective ecosystem structure requires to clearly differentiate between phases:

- ➔ **Ideation:** Identify unmet market needs and design demand-driven innovations.
- ➔ **Incubation:** Prototype, establish product-market fit, and secure initial clients.
- ➔ **Acceleration:** Test the business model on the ground, expand customer bases, and enter new markets.
- ➔ **Investment Readiness:** Develop the financial and operational maturity required to clear institutional due diligence.

Recognizing these gaps, **Climate-KIC** developed **the Circular Venture Blueprint** to guide Entrepreneurship Support Organizations in building systemic initiatives that coordinate policy, finance, and technical support across the entire entrepreneurial lifecycle.

Beyond structural support, talent and execution capacity are decisive filters for investors. Financiers require mature management teams capable of navigating rigorous due diligence. This necessitates clean internal foundations, such as clear shareholder agreements, transparent leadership structures, and succession plans to withstand founder splits or operational crises.

For circular companies that have moved past the startup phase, the primary need is exposure to VC and institutional impact investors. This requires specialized technical assistance that helps mature businesses package their operations specifically for high-level due diligence. The goal is to move from a general impact narrative to a sophisticated financial presentation that speaks to the language of VCs, making the business case for circularity undeniable to commercially-minded funders.

Key Observation: Financing the CE involves navigating a double-risk profile: the typical operational risks of any young company and specific structural risks unique to circularity.

Investors are raising the bar for green claims, seeking innovation beyond standard industry practices. In packaging, for example, using a certain percentage of recycled fiber or aluminum is now viewed as business-as-usual in Europe rather than an innovative circular gain. Financiers remain skeptical of labeling OPEX without clear improvement gains over standard baselines to justify impact-linked instruments.

A significant hurdle is the green premium, the extra cost of circular products when linear alternatives fail to account for negative externalities. While affluent consumers may absorb this cost, price-sensitive markets or foundational sectors where margins are thin struggle. Even when products like recycled agricultural waste bricks reach cost parity and offer superior properties, companies must still spend massive efforts on sales because the market does not yet prioritize circularity over the traditional linear alternative.

These challenges are reinforced by informality and value chain risks in emerging markets. The waste management sector in many EU partner countries relies heavily on an informal workforce of collectors and sorters. This unmapped supply chain introduces safety and volatility risks that deter formal institutional investors and DFIs. For a circular deal to become bankable at scale, projects must address the entire value chain, including the formalization of informal roles, to ensure a stable, ethical, and safe supply of secondary materials. Targeted policies play a critical role on this front by helping to include more of the informal sector and guiding their transition into formal structures. It is essential to design these systems to include

them rather than exclude them, ensuring the new CE protects their livelihoods without destroying their position in the value chain.

Even when circular products overcome these structural hurdles, demand-side resistance and rigid technical paradigms remain a major barrier. Even at cost parity, CE businesses spend significant time and effort pushing their sales against established linear paradigms. In the Colombian construction sector, big players often claim a lack of technical regulation for materials like modular waste-bricks, even when such regulations exist or could be easily set up. Similarly, in the textile industry, business leaders are convinced that consumers will not accept biomaterials for high-performance use (like gym wear). This creates a paradox: the very companies with the marketing scale to shape consumer habits and normalize take-back systems resist leading the shift. Overcoming this inertia requires working on both sides of the market: funding circular supply while incentivizing demand through verified eco-labeling systems and consumer education. Developing labels that easily identify which products consume fewer resources or are designed for circularity would therefore provide the transparent market interface needed to compel major industrial actors to commit to circular transitions.

Key Observation: State-driven circular public procurement could function as a critical, non-dilutive engine for market creation and private investor de-risking.

Beyond consumer behavior, state purchasing power is one of the most significant untapped levers for market creation. Redirecting existing public budgets, which represent a substantial portion of GDP, by integrating circular criteria and secondary material requirements into public tenders provides the long-term volume certainty private financiers need to underwrite, for instance, recovery infrastructure. However, circular procurement faces a structural dilemma: setting requirements too high risks outpacing current local supply, driving up project costs, or leaving tenders without qualified bidders. Overcoming this friction requires professionalizing procurement processes, shifting institutional mindsets, and simultaneously developing physical recovery infrastructure to ensure secondary material supply meets state-driven demand.

Key Observation: Unlocking commercial capital requires circular ventures to achieve price competitiveness rather than relying on green premium allowances.

Large-scale capital providers, including DFIs and pension funds, maintain strict commercial return expectations and rarely lower their risk thresholds simply because a business is circular. Impact funds frequently evaluate deals on an even 50-50 split between impact and financial returns, refusing to invest if either side underperforms. This rigidity exposes a profound double standard in global finance: while traditional sectors like oil and gas routinely absorb millions in failed exploration as an accepted cost of doing business, sustainable transitions face a zero tolerance for financial underperformance. This lack of an exploration

mindset biases capital allocation toward low-impact, plug-and-play solutions rather than the systemic product redesigns required for a true circular transition.

Relying on a green premium fundamentally limits a venture to a tiny niche. Charging even a 20% premium typically isolates a business from mainstream buyers, while even cost-parity ventures face immense market inertia. For example, one financier cited one of their portfolio companies that produces construction blocks from agricultural waste matching market prices and offering superior structural properties, but still requires exhaustive sales efforts to convince clients to abandon traditional linear alternatives. True commercial viability therefore depends on matching linear prices while offering bonus performance benefits, such as enhanced durability or energy efficiency.

To bridge this commercial gap, circular ventures must professionalize their investor readiness. Founders often run field operations that are far more impressive than what their pitch decks convey, struggling to translate their specific circular model into clear cash-flow forecasting. Developing structured data rooms, refining financial modeling, and mastering the narrative presentation of circular risk-mitigation are essential steps to make the business case undeniable to commercially-minded investors.

Key Observation: There is a visibility gap that leaves active circular models unrecognized and excluded from institutional financing pipelines.

Despite receiving hundreds of applications annually, some impact-driven funds and DFIs shared that they only see a handful of circular models that apply. As one investor noted, many existing companies lack the financial maturity or circular rigor required for institutional backing. To bridge this gap, financiers emphasize the need for targeted pipeline-building initiatives that prepare companies for financing. This involves not just identifying existing circular businesses, but actively shaping them, addressing gaps in business modeling, health and safety standards (e.g. in glass bottle recycling), and technical safeguarding to meet the minimum requirements of international investors. Besides, one should not forget that CE is often treated as a subset under broader sustainability or climate targets. As a result, these circular models must compete for capital with other impact initiatives that are often significantly easier for investors to understand and assess.

This structural pipeline deficit is aggravated by the fact that in many emerging markets, circular business models often exist but are not recognized as such. Many small enterprises practice resource recovery or repair out of necessity but do not categorize themselves as circular businesses. Similarly, a bank noted that while circular activities are happening on the ground, they often go unrecorded in financial systems because banking officers lack the training to distinguish between linear and circular business models. Without this capacity to categorize, institutions cannot generate the data-driven reports needed to prove the market's viability or track progress against sustainability targets. This prevents circular

businesses from unlocking specific financing windows, rendering their functional resource loops invisible to external scouting networks.

The lack of visibility further extends to a geographic pattern in how deal flow is typically sourced within these regional ecosystems. A common pitfall in pipeline building is the over-concentration of funding in major hubs like Nairobi or Bangalore. A philanthropic actor pointed out that the same few enterprises are often 'recycled' across different donor portfolios. To build a truly robust pipeline, financiers must increase their risk appetite and expand their scouting to Tier 2 and Tier 3 cities (e.g. Kisumu or Mombasa in Kenya). There are high-potential circular enterprises outside the capital cities that remain unseen due to limited awareness and a conservative risk-taking culture.

This significant awareness gap between those who have capital and those who need it shows the importance of visibility efforts. It was highlighted that risk-tolerant investors ready to support circularity do exist, even if returns are slow or nonexistent, who simply do not know where to find the existing, mature pipeline. Financiers emphasize the need for brokerage initiatives that bring these actors together. Successful examples demonstrate that creating platforms for direct dialogue allows for knowledge-sharing and the expansion of professional networks. These platforms ensure that SMEs leave aware of specific funding avenues, while investors leave with a clear, verified list of investable clients.

Key Observation: It is not enough to design a closed loop; entrepreneurs must build a robust revenue model and define a value proposition that actually sells.

The primary challenge for circular entrepreneurs is not product viability, but market monetization and revenue diversification. Many businesses struggle on the revenue side ('how to make money') because they fail to identify a go-to-market strategy that targets customers with the actual ability to pay; impact-heavy models often falter when they target segments like smallholder farmers without a plan for sustainable cash flow. To overcome this, entrepreneurs must embrace revenue diversification. For example, a farmer's business model is often limited to traditional crops or livestock activities, yet they could evaluate the land they own to generate multiple revenue streams through carbon credits, on-site waste processing into secondary products, or ecotourism. Similarly, a Product-as-a-Service model requires more than just a subscription fee; it necessitates a broader exploration of how to monetize the service and the material lifecycle.

Business support programs often focus too much on fundraising rather than actual sales readiness. Field data shows that most small business struggles would be solved by simply clarifying who their target buyers are and how to reach them. To tackle this, the *Circular Business Platform*, for example, designed a customer acquisition program. This culminated in a physical marketplace in Nigeria, where external visitors were given 5.000 Naira tokens to spend at individual enterprise booths. This setup brought business owners into direct commercial negotiations and value proposition pitching. The pilot successfully helped companies identify

their target buyers and highlighted the need for ongoing training in trade fair readiness, international B2B matchmaking, and commercial lobbying.

Key Observation: The lack of a structured pipeline connecting practical corporate challenges with academic research creates an operational disconnect that slows down the technical validation of circular business models.

Without a clear bridge between industry and academia, companies struggle to access specialized technical expertise to validate alternative materials or waste-to-value concepts, while universities remain isolated from real-world market demands. Nigeria's *Circular Business Platform* addressed this gap by piloting a corporate-academic matchmaking model, sourcing concrete technical inquiries directly from active circular enterprises (e.g. fly ash utilization, waste-to-energy conversion parameters, plastic waste quantification) and pairing them with researchers to produce actionable, business-ready solutions. Scaling these models requires aligning public and private funding horizons through coordinated consortia: public funding de-risks technologies at mid-range Technology Readiness Levels (TRL 6–7)[1], establishing a pre-committed handover to private capital so circular ventures maintain momentum from the lab to the market.

Key Observation: The transition to circularity is constrained by industry inertia and a reliance on consumer behavioral changes to achieve operational scale.

Driving large corporates toward the CE depends on market education and consumer pull. Standardized labeling, identifying products that are circular or resource-efficient, is essential to provide the market transparency required to shift demand and compel corporate commitment. This corporate buy-in is vital because closed-loop systems require reliable offtake partners. Early-stage circular startups need established industrial players to act as anchor clients, integrating circular outputs directly into commercial distribution networks to provide the steady, predictable revenue necessary to exit the pilot phase. In order to move materials efficiently through a circular loop and prove bankability to future investors, startups must build structural relationships with established corporate partners that offer direct supply chain entry partnerships.

Advancing CE financing therefore requires a more sophisticated understanding of this demand side, specifically regarding consumer behavior change and the unit economics of circular strategies such as reuse. As one investor noted, reuse models require massive consumer adoption to reach the operational scale needed for profitable logistics. Drawing a historical parallel to the early days of e-commerce, companies like Amazon were heavily subsidized by private capital while initially making losses on book sales; it was only by gradually adding categories and building market habits that they became profitable businesses. Reuse models require similar high-risk, catalytic funding, like grants or first-loss risk capital, potentially from development organizations or financiers focused on shifting public consumption, to test

[1] TRL created by NASA, as explained here : About Technology Readiness Levels

and validate these behavioral changes. There is a profound need for market research that explores how to create innovative business models that inspire reuse rather than just mandating it. Market research should help entrepreneurs identify specific pockets of the value chain where they can scale reuse models gradually. Supporting successful pilots to build a critical mass of consumers is a practical way to reach a level of economic viability that allows circular models to claim true cost parity and attract long-term commercial interest.

According to a representative from a foundation, the primary barrier to advancing the CE is not a deficit of technological innovation or a lack of viable pilot models, but rather a **deep-seated human resistance to shifting away from established habits**. From their perspective, the market already possesses sufficient proof-of-concept solutions across various segments of the value chain; the critical bottleneck lies in moving these models from isolated, de-risked pilots to widespread industry adoption. Overcoming this inertia requires a fundamental shift in market perception, which can only be achieved by **demonstrating that circular business models are not just environmentally sound, but make definitive commercial sense** and are profitable. One interviewee emphasized that instead of continuously funding the creation of brand-new ideas, the sector must pivot toward proving an undeniable, scalable business case that compels traditional, risk-averse market actors to change how they operate.

Key Observation: EU linkages in the CE of emerging markets manifest as a practical web of market access, founder ties, and operational connectivity.

The connection to Europe is a practical reality of where founders come from, where equipment is sourced, and who buys the final products. The pull of European consumer is a major catalyst for circular growth in emerging markets, as local circular companies integrate with the EU via their customer base, retailers, wholesalers, and distributors who provide the essential market access these companies need to scale. This commercial pull is especially visible in specific high-quality recycling supply chains where local processors export very technical recycled materials requested by European customers. A prime example is a Rwandan chili sauce producer actively exploring the British market, proving that commercial viability is secured when localized resource models align directly with the purchasing criteria of value-driven European buyers.

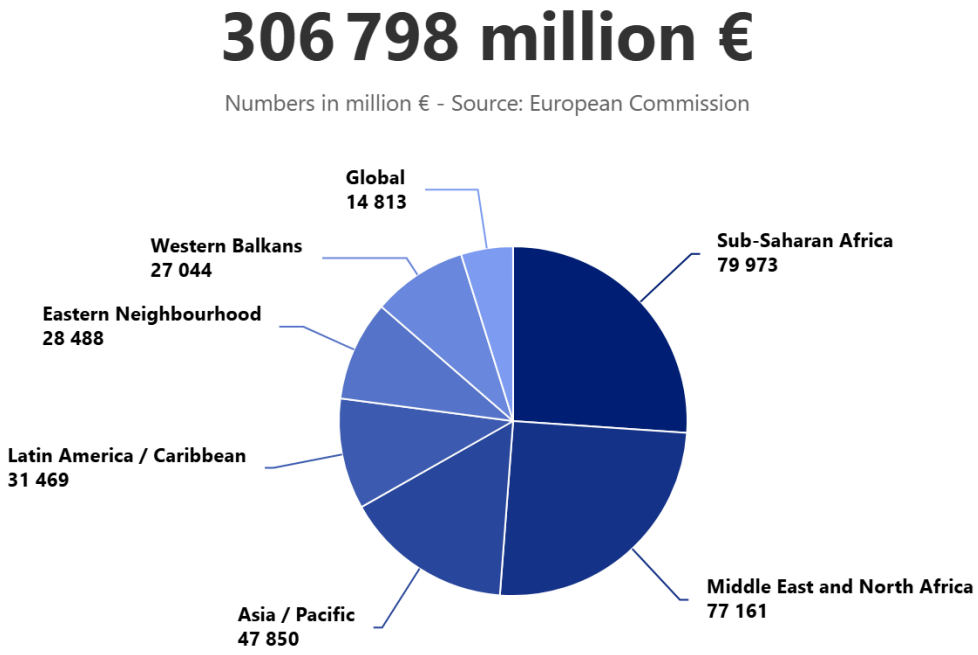
However, navigating market access is increasingly complex due to trade barriers, tariffs, and emerging frameworks. For instance, the *Packaging and Packaging Waste Regulation* includes mirror clauses that require external suppliers to prove that their secondary feedstock meets strict EU standards. But the precise administrative mechanisms to demonstrate this traceability have not been clearly defined. Therefore, a heavy cloud of regulatory uncertainty hangs over the market, leaving local processors who have heavily invested in responsible sourcing stuck in a compliance vacuum.

This regulatory bottleneck directly complicates a larger macroeconomic tension regarding international trade and material flows. While CE pioneers frequently debate how to foster closed regional loops to keep waste within its market of origin, the physical reality of

global supply chains makes complete self-sufficiency challenging. Because a single modern packaging item can contain dozens of different blended material layers, moving resources across borders remains unavoidable. Operational experience shows that while local upcycling must be encouraged, trade will remain a permanent feature of global material flows, requiring trade regulations that are simple, stable, and clear.

These ground-level commercial realities are increasingly recognized under the EU Global Gateway strategy, where cross-border trade linkages are elevated from simple transactional routes into high-integrity circular corridors. Rather than treating market access and environmental development as disconnected mandates, this framework utilizes the established purchasing power and quality criteria of European buying networks to raise business standards and systematically close the maturity gap for suppliers in emerging markets. Aligning local material flows with the Global Gateway envelope ensures that strategic corporate partnerships automatically unlock previously inaccessible pools of development capital, creating a transparent global supply ecosystem where international markets pull directly funds local infrastructure.

Fig. 5: Total Global Gateway investments mobilized 2021-2024



Global Gateway is implemented through a "Team Europe" approach. Team Europe consists of the European Union, EU Member States — including their implementing agencies and public development banks — as well as the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD).

Source: European Commission (2026)

The link to Europe is frequently hardwired into the internal DNA and ownership ties of early-stage enterprises. A DFI noted that a significant number of their African portfolio companies have direct EU connections through investors, mixed founding teams, supply chain linkages, or the specific equipment used in production. A commercial bank in Africa has a similar observation; while many small, locally-owned businesses lack direct EU links, bigger ones do have European ownership and may engage with local banks. Furthermore, linkages are sometimes built into the financing itself: development partners may include terms that encourage or require collaboration with businesses or partners from the country providing the capital, particularly in the agricultural sector.

Startups from EU partner countries identify Europe as a highly lucrative market and actively seek long-term commercial pathways into the region. An accelerator reported that even when these startups do not possess formal ties to the EU prior to enrollment, corporate matchmaking frequently acts as the catalyst for building these cross-border ties. While facilitators welcome founders returning technical knowledge back to benefit local economies, the operational gravity of the European consumer market naturally encourages many emerging ventures to establish a permanent presence. In some cases, this market integration becomes so deep that companies set up physical operations inside the EU, cementing Europe as a critical commercial anchor for their global business models.

Recommendations and actionable pathways

The CE has strong founders, proven models, and growing market appetite. What is needed now is better infrastructure to connect these elements, structured pathways that take businesses from early concept to investment readiness, and support ecosystems that help circular entrepreneurs reach the right partners, buyers, and capital at the right moment.

1. Promote customer-driven revenue modelling, diversification, and realistic monetization

Enterprise development must look beyond the purely technical loop designs to prioritize market realities, unit economics, and explicit customer needs from day one:

- **Pivot value propositions toward functional merits over circular narratives:** Refine marketing around physical output benefits (e.g. product performance, health benefits, or taste) rather than waste valorization alone. Selling on functional merits ensures products compete effectively in open markets while the underlying circular mechanism acts as an internal cost-efficiency driver.
- **Ground revenue models in direct price competitiveness:** Update business modeling frameworks to help early-stage ventures and corporates build unit economics that match

linear alternatives without relying on green premiums. This de-risks product redesigns while protecting commercial margins.

- **Integrate field-tested toolkits into support programming:**
    - *The Circulab Toolbox:* Deploy the *Value Chain Canvas*, *Partner Map*, and *Circular Business Model Canvas* to map step-by-step material flows, uncover resource inefficiencies, and identify profitable upstream pivots before market entry.
    - *The Invest-NL Circular Business Model Blueprint:* Leverage this practical reference library documenting 100+ European circular configurations to help ventures diversify revenue beyond subscriptions, exploring carbon asset monetization, byproduct processing, and Product-as-a-Service lifecycles.
- **Address foundational business mechanics:** Focus support on core commercial challenges, sound management, clear revenue models, and team execution, since resolving standard business hurdles naturally opens up commercial capital.

2. Incorporate active corporate transition mechanisms within commercial banking portfolios

Financial teams can systematically convert traditional borrowers into circular clients:

- **Build corporate capacity to generate circular deal flow:** Use tools to train client staff on mapping material flows and identifying revenue diversification ideas.
- **Proactively screen and convert existing portfolios:** Adapt hands-on transition logic to screen traditional borrowers, deploy targeted transition pilots, and help corporate clients convert industrial side-streams into secondary, bankable products.
- **Train investment managers as transition advisors:** Integrate circular capacity-building into internal banker training programs, enabling portfolio managers to systematically identify, design, and activate circular pathways.

3. Encourage peer-to-peer corporate learning platforms for transition journeys

Accelerate the adoption of circular models across traditional industries by establishing collaborative, peer-to-peer learning platforms that transparently document the operational and balance-sheet realities of established market leaders. By bringing corporate actors together to share data, map material loops, and disseminate sector-specific case studies, these networks show how mature entities manage complex structural pivots, navigate obstacles, and de-risk circular transitions from upstream design down to material recovery.

4. Elevate circularity within international cooperation strategies and dedicated events

Shift the global narrative from an environmental niche toward economic resilience by embedding circular design directly into international trade and investment frameworks:

- **Integrate circularity into high-level global forums:** Feature dedicated circularity segments at upcoming trade fairs and forums to show how European supply chain security directly relies on downstream infrastructure within partner countries.
- **Deploy sovereign-backed EOI Calls:** Pair Global Gateway strategies with national industrial ministries to invite private consortia in high-intensity sectors (e.g. critical raw materials, construction, textiles), providing automated access to technical assistance, public-private partnership (PPP) advisory, and growth equity.
- **Establish permanent Circular Co-Investment Platforms:** Create country-specific matchmaking frameworks linking circular operators with international equipment suppliers and institutional impact capital.

5. Deploy decentralized, action-research to formalize regional circular ecosystems

Uncover and support circular enterprises operating outside over-concentrated urban hubs by deploying localized diagnostic mapping screenings in partnership with regional manufacturing and trade networks. By auditing municipal mechanical zones, ecosystem builders can identify hidden, necessity-driven repair and resource-recovery shops and provide them with targeted business development services. This approach systematically transitions informal regional operators into legally structured, bankable collectives capable of clearing due diligence to unlock dedicated micro-finance windows and local credit lines.

3.5 Systemic financing

The demand side (circular enterprises) and the supply side (financial institutions) currently struggle to understand one other, and lack clarity regarding their own positioning. One interviewee who operated within various private sector financing facilities in Africa noted that the core issue is an informational disconnect. Frontline staff frequently possess little working knowledge or baseline awareness of what a circular business model looks like. At the same time, early-stage circular companies are routinely un-investable because they have difficulties in structuring their financials and lack specialized validation frameworks. A significant volume of local businesses executing circular practices do not self-identify as circular operators, cutting themselves off from funding opportunities. Capacity-building cannot just focus on one side in isolation; systemic matchmaking becomes effective once both sides of the ecosystem are

equipped with financiers decoding alternative cash-flow streams and circular enterprises transforming into investment-ready prospects.

Key Observation: A central systemic debate divides the financial sector over whether the low volume of circular transactions stems from an inherent lack of market readiness or a passive approach to pipeline development.

This split exposes 2 different mindsets regarding market creation. On one side of the debate, **some financial institutions argue that capital cannot be safely deployed until the surrounding market infrastructure, such as reliable supply chains for secondary raw materials, fully matures on its own**. For example, despite offering a comprehensive palette of tools, including public financing, patient capital, venture debt, project finance, equity, and advisory services, one MDB observes that its volume of circular deals remains lower than expected. This leads to the perspective that the market is still not there, and the primary blocking factor is a lack of demand or ready-made projects rather than a lack of capital and that financiers cannot force the deployment of capital if the foundational commercial demand is not yet established.

In contrast to this perspective, other financial institutions maintain that the market will simply never mature unless financiers intentionally build it themselves. *Bancolombia*, for instance, has adopted a hands-on approach to actively build its own pipeline. Instead of waiting for perfect projects to materialize, they view it as the bank's direct responsibility to take clients by the hand and guide them from linear to circular models. By providing intensive technical assistance, ranging from 1-day diagnostic workshops to 5-month intensive pilots, they help clients identify exactly where circular resource loops can drive internal cost efficiencies and lower their long-term risk profiles. By actively accompanying borrowers as they design circular roadmaps and connecting them directly with technology providers, these financiers demonstrate that the market can be intentionally developed by bridging the knowledge gap between sophisticated sustainable financial products and the operational realities of the borrower.

Key Observation: Large companies can act as a decisive investment force by anchoring capital in specialized funds to secure their own circular supply chains.

A pipeline-building momentum can be accelerated by leveraging corporate networks. Large corporations possess the supply chain networks, industry insights, and market motivations required to step forward as active investors. Funds like *Circulate Capital* demonstrate this potential, where FMCG brands and plastic producers directly co-fund dedicated VC and private equity arms. Driven by brand risk, ocean plastic pollution, and supply chain vulnerabilities, large corporations (e.g. *Coca-Cola*, *Unilever*, *Dow*) have blended capital with DFIs to direct CAPEX, OPEX, and technical assistance to recyclers and waste managers, transforming regional networks into pre-vetted secondary material suppliers.

Success stories exist and show how this corporate-backed capital bridges critical scale-up gaps for emerging circular ventures. *Lucro*, originally a plastic bag manufacturer whose internal data revealed massive floor scrap, scaled its flexible plastic recycling into a high-integrity supplier of secondary packaging for major FMCG brands. With early fund backing to establish backward-integrated collection centers and proprietary traceability software, *Lucro* eventually raised follow-on equity directly from *Unilever* to build its third factory. Similarly, *CIRC* received targeted high-risk growth capital to move its mixed textile-to-textile fiber recycling technology from laboratory to commercial proof-of-concept. This validation secured strategic partnerships with major fashion groups like *Inditex*, de-risking the venture to raise the capital required for its first commercial-scale plant.

Parallel corporate matchmaking models exist in platforms like *Circular Valley*, which acts as an ecosystem bridge without deploying direct capital. By connecting corporate partners willing to invest ticket sizes between €100,000 and €2 million in circular startups with public funding grants (exceeding €20 million from German ministries for chemical recycling and bio-plastics), the platform pairs private commercial interest with public de-risking. Through flagship transactional events, such as the *Circular Valley Forum* and the *Circular Valley Convention* in Düsseldorf, emerging innovators gain direct access to corporate procurement networks to secure a balanced mix of public grants, private equity, and development loans.

However, corporate funding priorities have shifted over time, highlighting how fundraising environments are evolving. While macroeconomic pressures and mandatory compliance frameworks like EPR have made voluntary corporate commitments harder to raise recently due to internal budget competition, corporate actors remain critical strategic partners deeply aligned with procurement teams to secure resilient regional supply chains. Crucially, the track record established by early corporate-backed deals has de-risked the sector for DFIs and institutional investors, allowing growth-stage circular ventures to leverage these networks and unlock larger institutional rounds to finance infrastructure expansion.

Key Observation: Shifting from fragmented, isolated deals toward value-chain financing is required to unlock capital for transformative, systemic solutions.

A critical shift in perspective is emerging among CE pioneers like the IFC and the EMF. They argue that evaluating circularity through isolated, individual deals structurally limits capital deployment. This is not a challenge unique to the CE; across almost every sector, **the siloed nature of finance favors plug-and-play models** that can be easily integrated into the current linear environment without requiring fundamental change. For example, a fashion resale platform or refurbished electronics business can often make a strong business case because they represent an additional revenue stream that fits within existing market logic. While these models encourage some displacement of new purchases, they do not challenge the status quo or require a complete overhaul of the value chain. In contrast, transformative solutions, like reuse systems with complex reverse logistics, are considered unbankable in standard risk assessments because they require a systemic approach that traditional finance is not designed

to evaluate. For instance, when an investment team looks at a single reuse startup, they see a high-risk entity dependent on external factors it cannot control, such as washing infrastructure, refilling pathways, and shifts in consumer behavior. Systemic solutions therefore appear unattractive because their success depends on a wider infrastructure that does not yet exist and the financier is asked to carry the systemic risk of a whole value chain on a single company's loan.

To bridge this gap, IFC and EMF focus on identifying the systemic barriers that block entire value chains. By moving away from the logic of individual deals, they can define the multiple reinforcing interventions necessary to make the economics of a whole system work. The failure of many recycling plants is often not due to internal management, but because the puzzle pieces around them are missing: there is insufficient secondary supply due to a lack of source-separation behavior at the household level, and the offtake remains weak as policy signals are too weak to incentivize companies to choose recycled materials.

Solving a problem like this requires more than just a good business idea; it requires a capital stack tailored to the specific vision. A systemic investing approach coordinates a blended mix of traditional and innovative financing tools to target whichever barrier is highest. Instead of a bank simply assessing a risky deal, this would mean providing a capital stack where grants fund the behavior change campaigns, philanthropic capital or development finance de-risks the first-loss layer, and banks provide the senior debt for infrastructure once the risk-return profile is stabilized. Blueprints like the **Groundbreak Coalition** in the US or **TransCap's** work in regenerative agriculture show that when the entire puzzle is funded at the same time, aligning the brands, the suppliers, and the policy levers, the individual pieces suddenly start to make financial sense. This moves the industry from fragmented efforts, always waiting for perfect deals to walk through the door toward proactively building the resilient, policy-backed markets required for a full circular transition, where circular business models can finally survive and scale.

Key Observation: R&I funding plays a critical role in absorbing early-stage risk.

Early-stage circular breakthroughs require non-repayable, high-risk capital before meeting commercial equity / debt criteria. Unlike asset-light startups, circular ventures manage technology, physical infrastructure, and complex supply chains simultaneously, creating a severe valley of death where ideation lacks validation capital. VC funding across emerging regions remains tough, and many circular initiatives are led by first-time, impact-driven founders whose non-linear growth curves do not match traditional venture capital expectations. Entrepreneurs must recognize that they need a diverse capital stack, where different financial partnerships come in at different levels of maturity based on what they need to prove out. Startups should look to philanthropic and concessional grants to fund their physical assets, early pilots, and working capital to cover day-to-day operational costs in order to absorb early risk, set up proper financial books, and prove operational scale. Only after establishing a solid, bankable track record they can realistically attempt to transition into commercial equity markets. For

financiers, the lack of familiarity with circular models leads to a mispricing of risk and difficult cash flow projection. It is often unclear for them if the business will generate the liquidity needed to meet repayment schedules when using standard financial instruments. As indicated above, these projects rarely fit the hockey stick growth curve of traditional VC because circular models do not typically offer immediate commercial returns. Philanthropy deploys innovation funding instruments designed specifically to take on early technology and design risks. For example, the *H&M Foundation*' *Global Change Award* gives capital to groundbreaking ideas that are not yet profitable, but have potential to transform the textile industry.

Co-creating collaborative financing structures allows banks to act as active partners rather than just creditors. For example, if a business needs to import a recycling machine, 30% of the cost could be covered by a grant, while 70% is structured as a bank loan with rates adjusted to the project's specific requirements. By blending cash, grants, and potentially even project ownership, banks can leverage their local market experience to ensure circular initiatives succeed. Another impactful tool are guarantees: by sharing the risk with public or international development actors, banks can explore more upstream or experimental circular projects that would otherwise be rejected. Similarly, concessional lending lines with lower interest rates support the cash flows of circular businesses.

When early risks are absorbed, it provides a stable runway for circular concepts to mature into commercially viable market leaders, a catalytic approach best exemplified by the *DOEN Foundation*'s early backing of *Fairphone*. Today a globally recognized social enterprise producing repairable, modular smartphones with fair materials and subscription-based service models, *Fairphone* originally started as an awareness-focused art campaign. The foundation gave the initiative space to discover a scalable revenue logic; once paired with commercial leadership, the project successfully transitioned into a highly profitable business, with *DOEN Ventures* maintaining an equity relationship today as Fairphone drives systemic, cross-industry change across global electronics supply chains.

Key Observation: The funding of R&I is driven by a strong moral motivation to prove that circular models can successfully replace a destructive linear system.

Philanthropic institutions accept early technology risk without immediate commercial guarantees because their capital deployment is driven by an institutional commitment to environmental and social change rather than strict financial risk-return equations. Entities like the *DOEN Foundation* and the *H&M Foundation* step into unproven territories to prove that circularity is a viable alternative to linear systems. Grounded in a core alignment to make business a force for good, these philanthropies utilize high-risk grants that prioritize material lifecycle preservation and commercial proof-of-concept over immediate cash flow.

Key Observation: Funding strategies differ when it comes to capital allocation, varying between a cascading grant distribution model and a direct capital setup.

This choice between intermediated and direct funding fundamentally shapes a funder's relationship with target initiatives. Many major foundations favor a multi-tier, cascading model, allocating large multi-year budgets (e.g. €3 million over 3 years) to local organizations. These local partners manage daily operations, adapt selection criteria, and give seed grants and technical assistance to MSMEs. Funders select these intermediaries through rigorous due diligence, evaluating their institutional mandate, SME track record, network strength, and co-funding stability, sometimes providing dedicated funding to build internal monitoring and evaluation capacity. Conversely, other grantmakers bypass intermediaries entirely, donating capital directly to individual changemakers.

To avoid operational bottlenecks common in delegated funding, grantmakers are increasingly adopting active co-design models. International program teams directly co-create selection criteria with financial partners rather than leaving eligibility solely to commercial institutions, a lesson learned after rigid screening standards previously left a multi-million-dollar credit facility completely untouched. For debt facilities, criteria are co-designed with participating banks alongside dedicated internal compliance officers; for grants, baseline parameters are set upfront, while grantmakers retain a permanent seat and veto power on final selection committees.

When it comes to circularity measurement standardized KPIs are favored. The reporting is often relatively loose and lacks an in-depth assessment of how circularity was fundamentally advanced within the business model. Partners are free to propose project-specific KPIs and have the autonomy to decide on individual grant sizes and the number of MSMEs they support. Although broad figures are often agreed upon during the initial co-creation phase to set a budget, donors recognize that partners must be allowed to adjust these targets as the reality of the local circular ecosystem shifts. This underscores the need for locally-embedded partners who have the credibility to manage this flexibility and align initiatives with national government policies and take ownership.

Key Observation: The intermediary funding approach allows to bring new actors into the CE ecosystem who may not have been interested or involved otherwise.

Distributing capital through local partners functions as a practical mechanism to incentivize established local actors to stretch their operational focus into the circular economy. An example is a VC firm primarily focused on African renewable energy and mobility sectors. Their strategic entry into the CE was driven by a first-time partnership with a foundation, which funded the firm to design and execute a dedicated venture builder program. Motivated by global research showing that the CE is historically dominated by impact-heavy organizations rather than scalable businesses, the firm sought to test whether strategic injections of philanthropic capital and hands-on technical support could transform traditional circular

concepts, such as e-waste, battery recycling, and appliance refurbishment, into commercially viable, VC-ready enterprises across a wide range of maturity levels. This pilot served as a major learning experience that ultimately reshaped the firm's future strategy. They concluded that standalone CE businesses are exceptionally difficult to scale, as the vast majority of evaluated ventures prioritized environmental impact over the rapid financial returns required by commercial equity investors. Because of this stark mismatch between impact models and VC realities, the firm decided to pivot its future focus away from standalone CE programming toward broader climate tech ventures with more readily scalable business models. Nevertheless, the intermediated setup successfully achieved its initial goal: leveraging philanthropic de-risking capital to engage a non-traditional funder, map nascent ecosystem realities, and test the commercial limits of early-stage circular models.

Key Observation: Most funding sizes are decided on a case-by-case basis instead of using fixed financial categories to fit the actual needs of local circular projects along the business value hill.

To accommodate the wide variance in maturity and organizational setups, grantmakers favor highly flexible capital terms. Most funding sizes are not fixed in advance and are rather decided on a case-to-case basis depending on the capacity and needs of the initiative. Foundations operate with different financial instruments, and the recipient does not have to be a traditional business per se to qualify for structural support. For example, one foundation structures its capital flexibility around the specific maturity and financial capacity of each individual pioneer. Their most common funding timelines span 2-3 years and focus on ticket sizes between €50.000 and €500.000. Depending on the projected business case, the foundation provides mostly non-refundable grants, but also concessionary loans or innovative subsidies with conditions that dissolve over time. Under this structure, the foundation evaluates the enterprise's financial books after a 3-4 year window; if the venture shows it is commercially viable and strong enough to handle debt, the initial subsidy transitions into a loan or equity through their dedicated investment arm.

Another foundation deploys grant money strategically to bridge the gap between a nascent idea and commercial viability, rather than covering day-to-day operational costs. For early-stage enterprises, the funds are deployed as seed grants to launch the business, alongside technical and business development support. For those at the growth stage, the money is strictly reserved for scaling their technical capabilities and refining their business models. The core objective is to help these circular enterprises reach a stage of maturity where they can successfully tap into commercial capital. To facilitate this, partners leverage their understanding of the wider ecosystem and their networks of investors to link enterprises to financiers once they are ready to expand, ensuring the catalytic funding acts as a springboard for long-term growth.

Beyond individual businesses, this flexibility allows foundations to deploy long-term resources into broad, multi-year collective impact initiatives at both ends of the value chain. The *H&M Foundation*, for instance, funds large-scale, multi-year collective impact

initiatives at the end-of-life phase. A key example is *Samuhika Shakti* in India, a 6-year program that provides holistic skills training, water, sanitation, and education to informal waste pickers and their families, while simultaneously building commercial supply linkages to funnel recovered textiles, metals, and plastics back into the industry for recycling into new garments and components. Further up the supply chain, the foundation focuses on industrial waste reduction and workforce resilience during technological transitions. It supports global platforms like the *Global Fashion Agenda* to pilot models for capturing post-production waste, the high-quality fabric leftovers that are cut out and discarded during garment assembly. This project tests commercial frameworks across major manufacturing hubs like Bangladesh, Vietnam, Indonesia, and Turkey to ensure this post-industrial waste is bought and funneled directly back into the textile industry. The foundation funds factory-floor initiatives to upskill female garment workers against the threats of automation and digitalization. Finally, because fixing factories is not enough if fashion brands keep relying on cheap production, the foundation funds initiatives like the *Fashion Remodel Project* with the EMF. This project works directly with global fashion brands to help them shift toward circular business models that scale up reuse and recycling, allowing them to make a profit without constantly needing to extract new raw resources.

Another example that shows that this funding is very flexible, comes from another foundation which provides business development and follow-on support through a customized systemic intervention. The foundation intentionally avoids overstepping its boundaries as a financier; instead, if a founder lacks specialized financial experience or faces business model hurdles, they deploy extra, dedicated funds for the business to hire external technical experts. For post-program progression, the foundation leverages its extensive venture philanthropy and impact networks to connect graduates with next-stage funders. Because every startup exits at a different maturity level, this matchmaking remains highly tailored to the specific needs of the entrepreneur, successfully keeping circular pioneers protected from repayment pressures during the proof-of-concept phase.

Key Observation: Dedicated R&I grants allow to boost upstream design.

Dedicated R&I grants play a critical role in boosting upstream design and materials engineering, such as product design for disassembly and take-back systems, laying the groundwork for long-term commercial and environmental viability before products even hit the market. While philanthropic organizations deploy early-stage capital specifically to prove these systemic business cases, public grant frameworks like the *EUREKA* network facilitate international research transfer between academia and industry. However, these public mechanisms face major structural limitations: fragmented national funding rules create steep compliance barriers for SMEs, while rotating annual chairmanships leave circularity as a fleeting priority rather than a permanent funding fixture, making it difficult for circular enterprises to rely on these grants for long-term operational planning.

Key Observation: Some choose to narrow down their focus to a single material lifecycle, while others keep their funding open across multiple industries.

Grantmakers take different strategic approaches when targeting circular impact, balancing deep sector-specific intervention against broad, ecosystem-wide adaptability. One foundation exemplifies the focused material approach by tracking the journey of a single yarn across its entire lifecycle. Circularity begins at the design phase, using durable, recyclable materials (cotton, silk, polyester), guide sustainable dyeing and production, and close the loop by building structured take-back pathways that intercept consumer waste before it reaches landfills. To inform this targeted strategy, the foundation funded the first textile-specific *Circularity Gap Report* with *Circle Economy*. Revealing that the global textile sector is only 0.27% circular, this data-driven baseline allows them to direct philanthropic capital precisely where structural vulnerabilities are most severe.

A vital gap identified through this lifecycle approach is the challenge of eco-design. Consumer demand for stretch, fit, and wrinkle resistance routinely leads to complex, blended fabrics that are nearly impossible to recycle mechanically. While switching to pure mono-materials is an easy fix for mechanical loops, it often fails to meet consumer needs. Funding advanced chemical recycling processes capable of breaking down complex blends into pure cellulose or polyester therefore is an alternative approach. By proving the commercial and technical business case for these solutions, brands transition away from linear material choices without sacrificing product performance or profitability.

Other major foundations intentionally maintain a broad, multi-industry focus to capture disruptive innovations across different sectors. The *DOEN Foundation*, for instance, uses an adaptable strategy. While actively monitoring emerging global crises like e-waste for future programming, their current funding leans toward bio-based materials and alternative resources. This open setup ensures that catalytic, high-risk capital remains accessible to diverse industrial breakthroughs, allowing grantmakers to support systemic circularity wherever promising models emerge.

Recommendations and actionable pathways

The most forward-thinking actors in CE financing are moving beyond individual deals to finance entire value chains that make circularity viable at scale. The following recommendations focus on the collaborative structures, blended capital mechanisms, and cross-sector partnerships that allow diverse financiers to move from isolated transactions toward integrated, system-wide investment strategies.

1. Fund and deploy longitudinal consumer behavioral studies and structural logistics testing

Move past generic advocacy to generate bankable commercial evidence on consumer return habits and reverse logistics costs:

- **Subsidize operational mechanics in economic hubs:** Channel multi-year pilot grants to multi-stakeholder consortia to evaluate deposit-return infrastructures in real-world settings (e.g. subsidizing reverse transportation costs during a 12-month window for glass bottle reuse to determine exact price-reduction triggers).
- **Establish a shared digital registry for market blueprints:** Synthesize data across European and emerging markets into a central clearinghouse. Provide consumer product innovators with field-tested metrics, such as return turnaround times, optimal packaging durability for washing cycles, and unit-level sanitization costs, to de-risk future market entry.

2. Institutionalize automated long-term impact portals and data hubs

Bridge the post-grant evidence gap by standardizing performance tracking and converting research metrics into active investment pipelines:

- **Mandate automated 5-year performance tracking:** Require funded innovation projects to register with an automated tracking system that logs operational indicators annually (e.g. whether a prototype was integrated into a commercial production line or the volume of secondary material processed).
- **Publish commercial case studies to attract follow-on capital:** Showcase the revenue logic, feedstock resilience, and cost-competitiveness of active circular clients to dismantle market stereotypes and generate bankable deal flow for commercial investors.
- **Deploy milestone-based payout structures:** Enforce data accountability using multi-tranche funding models tied to final financial and impact audits, using independent tracer studies to verify field-level results.

3. Embed circular venture financial windows directly into major trade and logistics corridors

Connect early-stage circular enterprises to large-scale, publicly funded infrastructure programs to secure steady corporate offtake and revenue:

- **Integrate mandatory circular sub-facilities into development projects:** Set aside mandatory sub-contracts within major infrastructure initiatives (e.g. Global Gateway port,

solar grid, or transport developments) for local circular MSMEs to handle construction waste, metal recycling, or e-waste management.

- **Coordinate multi-layer blended facilities:** Pair early non-repayable research grants with long-term concessional infrastructure credit wrapped around private equity to carry ventures safely from pilot validation to commercial scale.

4. Establish collaborative Think and Do Tanks to co-design flexible financial products

Address CAPEX and cash-flow challenges through layered revenue-based financing:

- **Co-design layered investment syndicates:** Bring together commercial lenders, microfinance institutions, VC, and development partners to fund interconnected material loops simultaneously. Structure capital stacks where grant funding de-risks collection logistics while debt funds joint industrial washing and sanitization assets.

- **Structure flexible, revenue-based repayment mechanisms:** Underwrite MSMEs using mobile money transaction records to assess debt capacity based on real cash flow. Implement dynamic repayments tied to automated percentages of incoming transactions, or use milestone-linked KPI asset loans where interest rates drop as verifiable recovery and reuse rates scale.

5. Identify and promote cross-sector synergy links to scale industrial symbiosis

Break down industrial silos by evaluating cross-industry material loops to lower credit risk and operational costs:

- **Issue unified project credit lines for joint ventures:** Actively screen corporate client portfolios to identify industrial overlaps (e.g. piping high-temperature wastewater from a textile mill to a neighboring packaging plant for heating).

- **Structure shared risk profiles to lower interest rates:** Evaluate cross-sector partnerships under a single unified credit profile, leveraging combined cost savings, resource efficiencies, and shared risk mitigation to lower overall loan pricing.

ANNEXES

Reference list to key documents

Document Name & Source Link	Organization	Year	Goal and Use
The Circulab Toolbox	Circulab		Applied as a hands-on methodology during corporate innovation bootcamps to visually map localized physical flows, isolate inefficiencies, and structure diversified revenue models.
Circular Economy Investment Tracker	International Finance Corporation		A data tracking platform capturing publicly disclosed private sector circular investments across material-intensive sectors (plastics, packaging, textiles) to demonstrate exit viability and commercial logic to institutional backers .
The Circular Economy as a De-risking Strategy and Driver of Superior Risk-Adjusted Returns	Intesa Sanpaolo, Bocconi University, & Ellen MacArthur Foundation	2021	Provides empirical, econometric proof that businesses with high circularity indicators correlate with a significantly lower Probability of Default. Used by risk management teams to adjust credit pricing models.
A Practical Guide to Circular Risk	Kopgroep Circulair Financieren	2024	A practitioner-led decision toolkit designed for front-line commercial bank relationship managers to distinguish between circular and linear debt financing deals in daily banking practice.
Global Circularity Protocol for Business Impact Analysis	World Business Council for Sustainable Development	2024	A science-based, transcontinental framework co-designed with global ministries and MDBs to standardize circular performance targets across climate, nature, social, and financial outcomes.
Circularity Gap Report: Textiles	Circle Economy & H&M Foundation	2024	Establishes an empirical metric baseline (showing the global textile system is only 0.27% circular) to strategically steer philanthropic capital toward severe industrial gaps, prioritizing mono-material design and chemical upcycling.
Harmonized Responsible Sourcing Framework for Recycled Materials	The Circulate Initiative & IKEA Foundation	2024	Implements social traceability and human rights metrics within the "first mile" of informal waste collection. Used by investors as a structural credit enhancement and risk-mitigation tool for transnational supply chains.

Harmonized Circular Economy Finance Guidelines	International Finance Corporation	2025	Used as a global standard for financial institutions to identify, categorize, and quantify bankable circular investment volumes across material lifecycles. Features a 3-step decision tree to isolate eligible allocations.
The Circular Venture Blueprint	EIT Climate-KIC	2025	Acts as a systemic guide for Entrepreneurship Support Organizations (ESOs) to align policy, technical assistance, and multi-stage capital options across a startup's entire lifecycle.
EUREKA Network Call for Circular Value Creation Guidelines	EUREKA Network	2025	Sets the cross-border administrative and technical eligibility frameworks for transcontinental R&D&I circular funding. Strategically used to allocate non-repayable grants to upstream consortia targeting design-for-disassembly, while expressly excluding basic downstream recycling.
GroundBreak Coalition: A Case Study of Systemic Investing	TransCap Initiative	2025	Serves as an operational blueprint demonstrating systemic investing and polycapital intervention strategies on the ground.
Transitioning to a circular economy: Closing the investment gap in Europe	European Investment Bank & European Commission	2026	Establishes the sector's first formal quantitative data baseline, tracking public-private financing shortfalls and identifying the remaining annual investment gap needed to clear structural milestones.
UK Financial Sector Guidelines for Credible Transition Finance	Transition Finance Market Review & Finance Council	2026	A structured classification architecture engineered to channel asset-heavy liquidity directly into corporate transition strategies and explicit operational adjustment plans.
The EU CE Act White Paper	Ellen MacArthur Foundation	2026	Outlines 3 key strategic policy levers for the upcoming EU Circular Economy Act to align cross-border material, product, data flows.
Specialized Electronics White Paper & Mass Analysis	Invest-NL	2026	Small consumer electronics are the fastest growing e-waste stream. Research by Invest-NL shows how these material flows occur and what steps are needed to achieve the circular ambition by 2050.
Paying to Change	Invest-NL	2026	Gives insights into 120 successful circular revenue models across Europe. They support entrepreneurs, investors and value-chain partners in developing stronger, more financeable business cases.



This report was developed through the technical and strategic contributions of the EU CERC Business Lab team: Frederik van den Bosch and Nicoletta Favaretto, as well as the Ovation team: Luisa Schillinger, Stéphane Moubacka, David Valentiny, Laurent Mikolajczak, and Nathalie Joie, with the support of the EU CERC project partners.

The EU CERC is a joint initiative of the European Commission, the Finnish Ministry for Foreign Affairs, the Finnish Innovation Fund - Sitra, and the Belgian agency for international cooperation - Enabel.

@JD Photography

EU Circular Economy Resource Centre
www.sitra.fi/en/eu-cerc
EUCERC@enabel.be
September 2026

EU CERC | FUNDED BY | IMPLEMENTED BY