
The Circularity Gap Report Finance
C:GR
Finance
Tracking capital flows in the circular economy
CIRCLE ECONOMY

Behind the cover

Just as star trails reveal hidden patterns in the night sky, the *Circularity Gap Report Finance* traces the often-invisible paths of capital through our economy.

The cover reflects this dual motion—natural and financial—reminding us that to build a circular future, we must understand where our money goes and what it enables.



CIRCLE ECONOMY

Circle Economy is driving the transition to a new economy. In this economy we help businesses, cities and nations leverage business opportunities, reduce costs, create jobs and inspire behavioural change. As a global impact organisation, our international team equips business leaders and policymakers with the insights, strategies, and tools to turn circular ambition into action.

Circle Economy has been at the forefront of the circular economy transition since 2012. Our annual *Circularity Gap Report* sets the standard for measuring progress and we manage the world's largest circularity database, encompassing data from over 90 nations, 350 cities, and 1,000 businesses.

In collaboration with KPMG

KPMG, as a global network of firms operating in 142 countries and territories, knows the intrinsic power of ESG to transform your business. With more than 275,000 partners and employees working in member firms around the world, KPMG professionals can show you how to enhance trust, mitigate risk and unlock new value as you transform to build a sustainable future. KPMG services are holistic and practical to guide your teams to drive sustainable innovation across your organization. Through industry-leading knowledge, data-driven technology and global alliances, KPMG professionals' experience across critical ESG issues means KPMG professionals can assist you in creating the right roadmap for your journey, putting ESG at the core of your operations—where it should be.

With support from IFC

IFC—a member of the World Bank Group—is the largest global development institution focused on the private sector in emerging markets. We work in more than 100 countries, using our capital, expertise, and influence to create markets and opportunities in developing countries. In fiscal year 2024, IFC committed a record $56 billion to private companies and financial institutions in developing countries, leveraging private sector solutions and mobilizing private capital to create a world free of poverty on a livable planet. For more information, visit www.ifc.org.

In support of the *Circularity Gap Report Finance*

JAMIE FERGUSSON, GLOBAL DIRECTOR OF CLIMATE BUSINESS, INTERNATIONAL FINANCE CORPORATION



'Understanding how circularity investments flow through our economies is essential to uniting stakeholders across the ecosystem—supporting inclusive growth, job creation, and business resilience in both emerging and developed markets. The *Circularity Gap Report Finance* is a welcome contribution, reinforcing the private sector's role in unlocking sustainable value for companies, communities, and countries.'

JANEZ POTOČNIK, CO-CHAIR, INTERNATIONAL RESOURCE PANEL



'This report is a clear reminder that the global financial system still remains geared towards linear, not circular, models of resource use. Circular economy is not economically attractive and sufficiently financially supported. Market signals to producers and consumers, including financial flows, are playing a critical role, if we want the circular economy to become a norm.'

JOOST VAN DUN, DIRECTOR SUSTAINABLE SOLUTIONS GROUP & CIRCULAR ECONOMY LEAD, ING



'ING welcomes this first *Circularity Gap Report Finance*. It gives great insight into how capital flows are currently allocated to circular activities, and highlights that more action is needed to unlock the full potential of the circular economy business case. It's an important topic for ING, as we also support clients that are seeking to address systemic circular change.'

DR AFKE VAN RIJN, DIRECTOR-GENERAL FOR THE ENVIRONMENT AND INTERNATIONAL AFFAIRS, GOVERNMENT OF THE NETHERLANDS



'We recognise that financing circular business activity is one of the key bottlenecks to achieving full circularity by 2050. I therefore warmly welcome this innovative report. It is a crucial step in helping us understand how capital flows currently operate and how we can address concrete obstacles together. For the Netherlands, this is vital—backing our businesses with the insight they need to lead in a future-proof economy.'

QUENTIN DREWELL, SENIOR DIRECTOR, CIRCULAR PRODUCTS AND MATERIALS, WBCSD



'The *Circularity Gap Report Finance* provides critical analysis of the capital flows needed for the transition to a circular economy. These findings support the Global Circularity Protocol for Business, which will guide companies to measure, manage, report, and disclose their circularity performance—demonstrating resilience, enhancing competitiveness, and attracting investment.'

GIANPIERO NACCI, MANAGING DIRECTOR FOR CLIMATE STRATEGY AND DELIVERY, EUROPEAN BANK FOR RECONSTRUCTION AND DEVELOPMENT



'At the European Bank for Reconstruction and Development, we see the circular economy as a vital pathway to long-term resilience and sustainability. By factoring resource use into financial decision-making, we can unlock smarter investments and stronger outcomes. This report is a timely and practical guide for investors, businesses and policymakers alike, helping to steer capital towards a more circular and resource-efficient future.'

MASSIMIANO TELLINI, HEAD OF CIRCULAR ECONOMY, INTESA SANPAOLO INNOVATION CENTER



‘Tracking capital flows in the circular economy is essential to unlocking its potential as a driver for competitiveness and innovation. As this report highlights, circular business models remain underfinanced despite their capacity to reduce risk and generate long-term value. Aligning capital with circular principles is key to building a more regenerative and future-proof economy. This is why Intesa Sanpaolo has disbursed more than €20 billion for circular projects since 2018 and is committed to supporting the circular transition through the activity of Intesa Sanpaolo Innovation Center. This is truly a collective journey.’

JAMIE BUTTERWORTH, PARTNER, CIRCULARITY CAPITAL LLP



‘After more than a decade supporting businesses in the circular economy, it’s clear that finance is a key growth lever. This report offers a valuable benchmark that helps us understand where we stand and where capital can flow to scale impact and reshape our economies for good.’

SUZANNE KUIPERS, DIRECTOR CIRCULAR ECONOMY AND PRODUCT DECARBONIZATION, KPMG



‘The transition towards a circular economy is crucial for value preservation and value creation in the economy at large and for individual businesses. In order to accelerate the transition towards the circular economy, sufficient finance is essential. Understanding the current capital flows—as this report helps to do—is an important step towards increasing these financial flows and ultimately scaling circularity.’

Preface

Who is this report for?

Financial market participants: as allocators of capital and assessors of risk, financial market participants play a crucial role in shaping the financial landscape for circular economy investments.

Financial sector regulators: tasked with maintaining sector stability and addressing systemic risk, regulators can leverage circular economy insights to mitigate turbulence and foster resilient financial systems.

Policymakers: with the mandate to direct capital flows towards key policy objectives, policymakers can use this report to inform strategies that align finance with socio-economic and environmental goals.

This report is however designed for anyone interested in understanding the intersection of finance and the circular economy. Though primarily concerned with macro-level trends and analysis, it is expected that the empirical results and analysis presented are also relevant to financial counterparts in business, as potential fund seekers, as well as researchers and civil society organisations concerned with the topic.

Interpreting the *Circularity Gap Report Finance*

The *Circularity Gap Report Finance* offers a global overview of **known investments in businesses engaging with the circular economy** over the six-year period between 2018 and 2023. The scope of the research focuses on 'available market finance,' in terms of sources and instruments that are hypothetically available to any prospective fund seeker. To provide a clear picture of capital flows, the report categorises investment data across four key dimensions:

- Sources: Who provides the finance?
- Types: Which financial instruments are used?
- Business models: Which circular economy activities are supported?
- Sectors: In which industries does investment take place?

This report represents a critical first step in circular economy investment tracking and is intended as a foundation for future iterations. The ambition is to refine the methodology over time to progressively fill data gaps, broaden the scope, and to enhance accuracy and relevance in subsequent versions. Given the methodological complexities involved in analysing financial flows, several scoping decisions have been made. Understanding these choices is essential for correctly and accurately interpreting and citing the findings. For a concise summary of key methodological considerations, please refer to Section 1: Introduction, for a more detailed overview of methodological decisions, please refer to the supplementary Methodology Document.

Executive summary

Tracking capital flows in the circular economy is a critical prerequisite to increasing them in scale and improving efficacy: the *Circularity Gap Report Finance* takes this first step. The circular economy represents a significant investment opportunity, a crucial risk-mitigation strategy, and key means to delivering a sustainable and just transition, but there is a considerable gap in our understanding of how capital flows support it. As an investment opportunity, the application of circular business models leverages resource efficiency to generate revenue streams, provide access to new markets, address a range of environmental concerns, and fundamentally deliver more value with fewer material inputs. Circular business models also play a vital role in mitigating resource risk—those associated with volatility in the price and supply of critical natural resources—which are a growing concern and often overlooked in traditional financial risk assessments.

Our analysis shows that investment in businesses engaging with the circular economy grew substantially over the six-year period 2018-2023 but declined in the two years following its 2021 peak. Tracking externally raised capital only, commercial circular economy investment averaged US$27 billion annually, with total investment in the latter three years (2021-2023) 87% higher than the first (2018–2020) (Figure A). While this growth signals a strengthening business case for circularity, the failure to exceed 2021 investment levels signals a loss of momentum. Further, the *Circularity Gap Report Finance* estimates that circular economy investment volumes make up just 2% of total tracked investment, while the overwhelming majority of capital funds linear, resource-intensive industries—increasing economic and environmental risks. While capital flows to the EU and US appear to be the largest, the analysis may not fully capture investments in emerging markets due to data gaps.

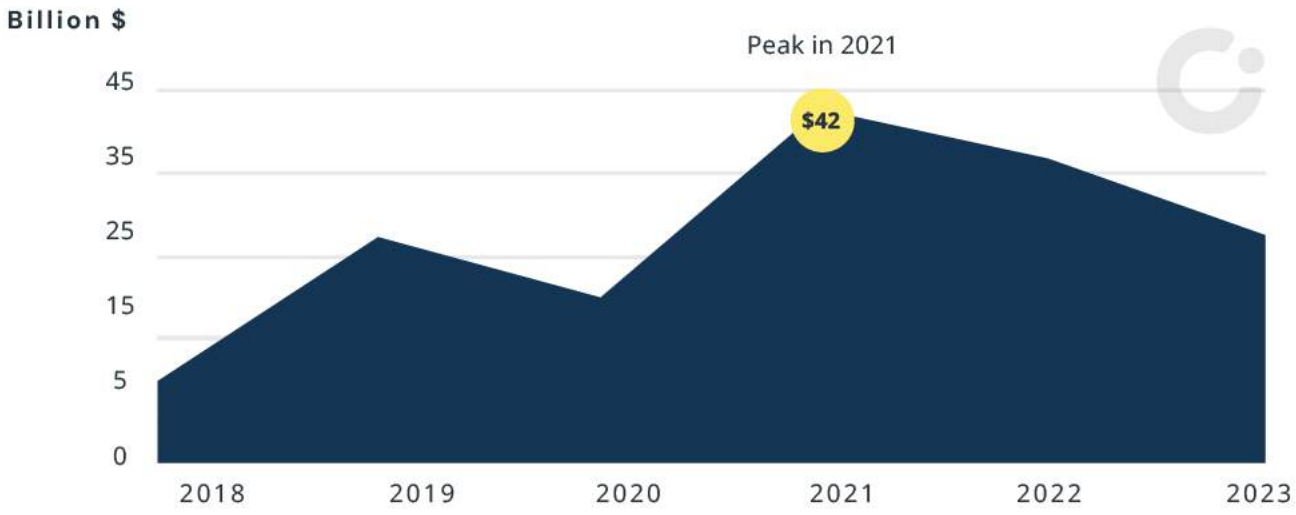


Figure A displays tracked investment in businesses engaging with the circular economy 2018–2023.

Circular economy investment is concentrated in conventional business models in mature industries. This analysis distinguishes investment in circular business models from investment in linear businesses transitioning to circularity. Investment for transition represents 35.7% of total tracked investment, while investment in circular business models is split between the three circular economy categories: Recovery models, which have relatively lower potential for resource efficiency gains, receive the most with 27.5% of the total. Use models receive slightly less with 23.5%, while just 4.7% is in Design and Production models, despite their potential to drive systemic change (Figure B). The three circular business models receiving the most funding are: vehicle repair, rental, and resale; online marketplaces for used electronics; and organic and agricultural waste recovery—each relatively conventional applications of circularity that have existed for decades.

At the sector level, we see that the sectoral proportions of circular economy investment are not closely linked with proportions of associated resource use per sector (Figure C). Encouragingly, for capital raised by linear businesses for circular economy transition purposes the relationship between investment proportions and sectoral resource use is more pronounced. Interestingly, circular economy investment proportions are more closely linked to climate impact than they are to resource use at the sector level. There is significant potential to invest in higher-value circular economy applications, particularly Design & Production initiatives such as material innovation, and sectors of strategic economic importance.

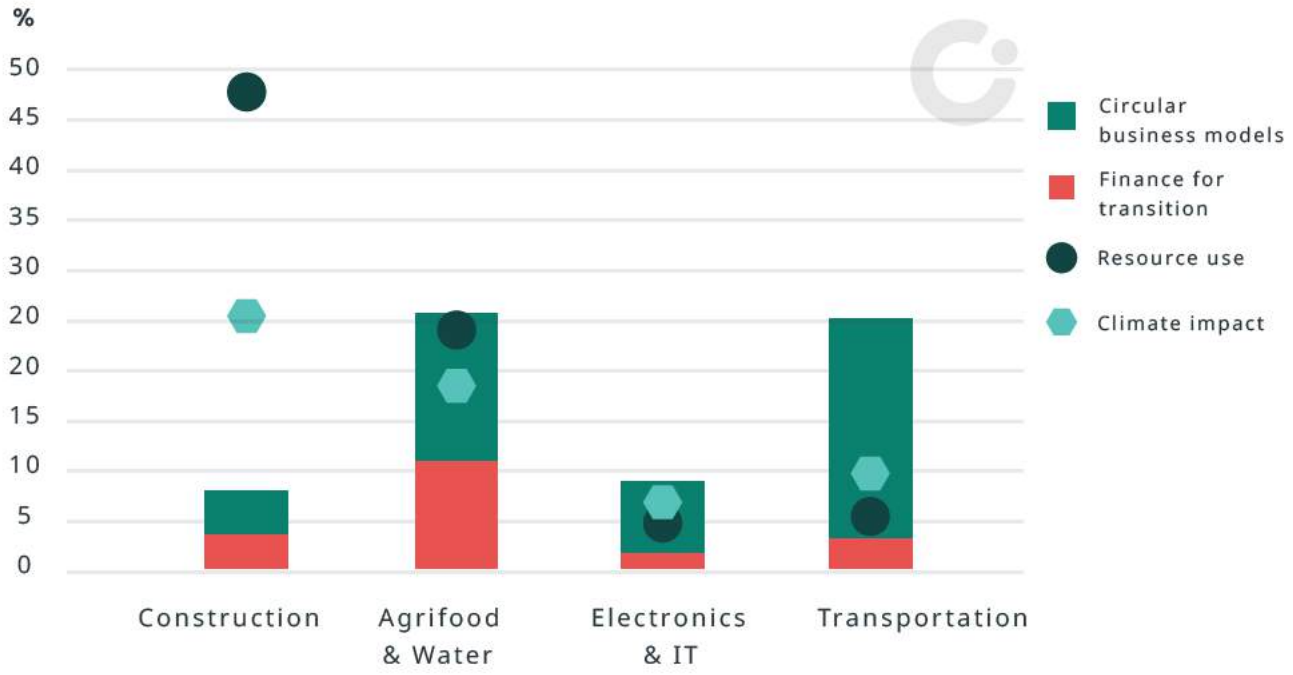
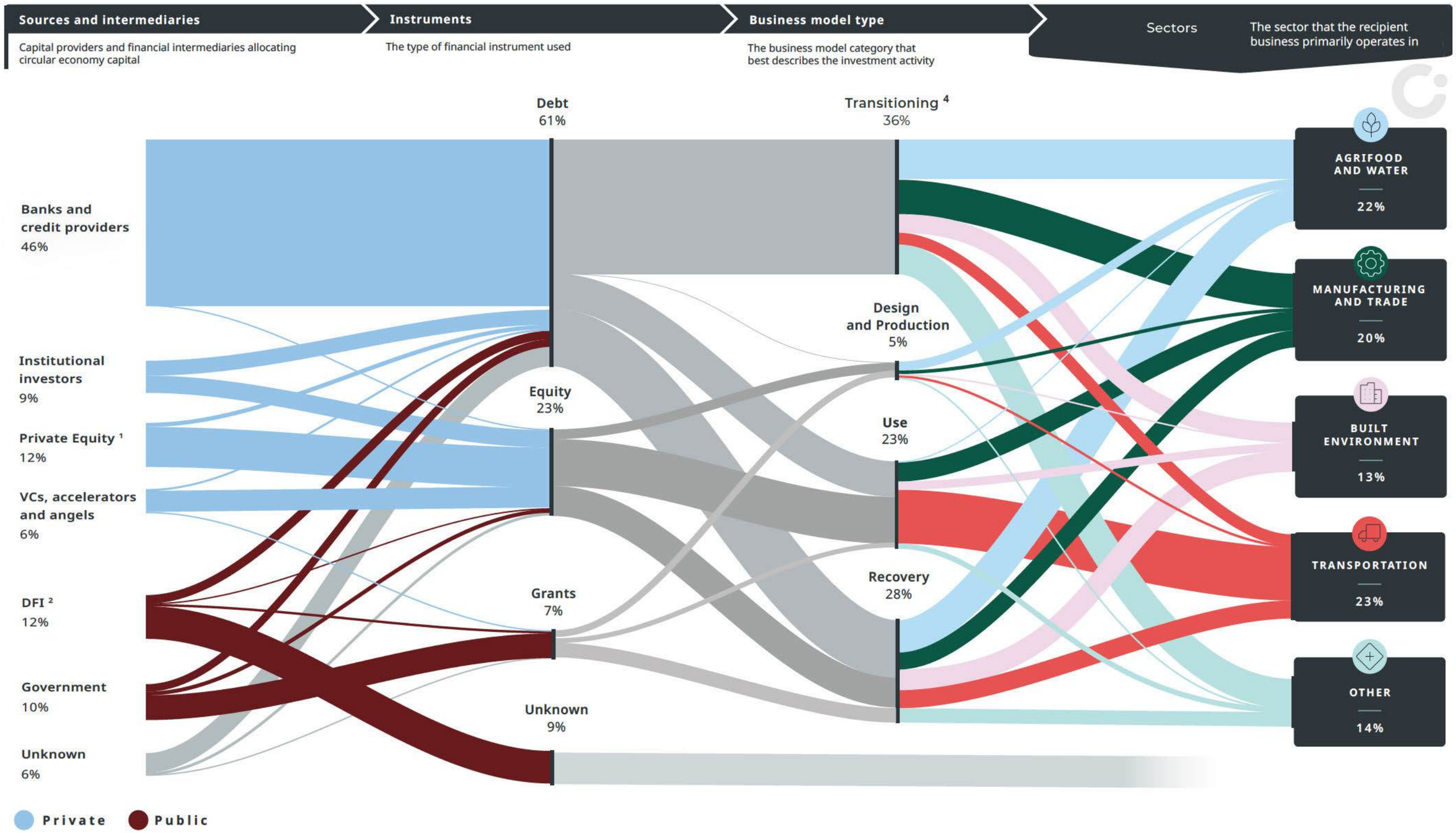


Figure C presents the share of circular economy investment allocated to a subset of sectors, alongside each sector's contribution to global GHG emissions and resource use. It shows, for example, that despite contributing to 48% of total resource use, the Construction sector receives just 8% of total circular economy investment.

Figure B shows known investment in businesses engaging with the circular economy over the six year period of 2018–2023.



1 CGRF tracks sources and intermediaries based on the allocator of capital. This means that despite Private Equity leveraging significant amounts of debt to finance buyouts, this will have been captured in the Banks portion as the provider of this debt.

2 Development Finance Institution (DFI) is the only instance where data acquired from proprietary sources was supplemented by own collected data. The proportion collected directly from DFIs is only represented in the source column as the relationships to the other columns were undeterminable. They are therefore presented as unknown in the other columns.

3 Unknown as a source refers to a subset of deals for which all necessary information was available except for the actual provider of the capital. These were kept in instances where the deals met all other scoping criteria.

4 Transitioning business models reflects capital raised by linear businesses specifically for circular economy purposes. It covers green loans and sustainability-linked loans only.

The lack of harmonised financial sector tracking and reporting on circularity obscures investment trends in the circular economy. In the absence of widespread reporting on circular economy investments, this study combines public and proprietary data sources to capture how capital flows into circular businesses and linear businesses in transition to circularity. The findings capture real economy investments in the form of loans, equity and grants awarded to companies whose primary activities are considered circular, as well as the proportion of green and sustainability-linked loans where the Use of Proceeds or key performance indicators relate to the circular economy. Project-level funding, corporate self-financing, domestic public spending, and financial economy transactions are excluded. As a result, the reported investment volumes should be seen as a baseline estimate rather than a full account. Instead of focusing on total volumes, the distribution of investment across the report's various distinctions provides the most reliable insights into circular economy investment trends, particularly as a signal of the commercial business case.

To unlock the full potential of the circular economy business case, coordinated action is needed across financial market participants, regulators, and policymakers. As the economics of resource use shift, the need to improve the scale and efficacy of circular economy capital flows is clear.

The following actions are crucial to make this a reality.

- **For financial market participants:** Recognise the value of circular economy business models, develop effective approaches to assess them, integrate resource risks into financial assessments, and prioritise investments that support long-term sustainability and resilience.
- **For financial sector regulators:** Standardise circular economy definitions and frameworks, provide guidance on integrating resource risks, mandate resource risk considerations, and support the inclusion of the circular economy lens in financial sector reporting.
- **For policymakers:** Internalise the social and environmental costs of resource depletion and resource risk through a range of policy measures, remove barriers to circular economy activities, and leverage public procurement and investment to create stable demand and stimulate market growth for circular solutions.

Glossary

Businesses transitioning to circularity are those where the primary business activity does not contribute to circular economy objectives, but where they are raising capital to implement some circular practices. This transition is tracked through the use of specific financial instruments, namely green loans and sustainability-linked loans, that include Use of Proceeds or key performance indicators related to resources or circular economy objectives.

Circular business models refers to companies whose primary activity contributes to circular economy objectives by keeping products, components, and materials in use and at their highest value for as long as possible. The models aim to optimise resource use and minimise through strategies such as circular design and production, product-life extension, reuse, and material recovery, among others. [Source]

Circle economy finance refers to capital that flows to businesses engaging with the circular economy. This includes both investment in circular business models and capital raised by linear businesses for circular economy purposes, specifically through green loans and sustainability-linked loans.

Development finance institutions (DFI) are public finance institutions that provide capital in support of sustainable development. DFIs play a key role in financing circular economy and climate-focused investments by providing long-term capital to high-impact sectors that are typically underserved by commercial finance. [Source] Multilateral development banks (MDBs) are a subset of DFIs established by multiple member countries. In addition to providing capital, MDBs offer policy advice, technical assistance and capacity building to create an enabling environment for sustainable investment. [Source]

Financial flows refers to the movement of capital between actors, sectors, or regions, encompassing various forms of funding such as grants, debt and equity. In the context of circular economy, this includes investments adopting circular business models and funding provided to traditional businesses implementing circular practices.

Green loans are any type of loan instrument made available exclusively to finance or re-finance eligible Green Projects. Green loans must align with the four core components of the Green Loan Principles. [Source] In the context of the circular economy, eligible activities may include eco-efficient and circular production technologies, environmentally certified products, resource-efficient packaging, waste prevention, recycling, remanufacturing, and value-added products from waste.

Key Performance Indicators (KPIs) in the context of sustainability-linked loans are quantifiable metrics selected to measure a borrower's performance against pre-defined Sustainability Performance Targets. They serve as the basis for assessing improvements in the borrower's sustainability profile, with the financial terms of the loan potentially varying based on the achievement of these targets. [Source]

Product-as-a-service is a business model where customers pay for access to a product's functionality or benefits rather than owning it outright. The company retains ownership of the product and is responsible for its maintenance, upgrades, and end-of-life management. This approach encourages product longevity and resource efficiency. [Source]

Real economy refers to the part of the economy that produces, provisions and trades tangible goods and services. It contrasts with the financial economy, which deals with financial markets and the trading of financial assets. [Source]

Resources include, for example, arable land, fresh water, and natural materials. They are seen as parts of the natural world that can be used for economic activities that produce goods and services. Material resources are biomass (such as crops for food, energy and bio-based materials, as well as wood for energy and industrial uses), fossil fuels (in particular coal, gas, and oil used for energy), metals (such as iron, aluminium, and copper used in construction and electronics manufacturing) and non-metallic minerals (largely used for construction, notably sand, gravel and limestone). [Source]

Resource efficiency means creating more or the same (economic) value with fewer resource inputs. It can also involve reducing the environmental impacts associated with resource use to break the link between economic growth and the use of nature. In this sense, resource efficiency is closely linked to the concept of (relative/absolute) decoupling. [Source]

Resource risk is the exposure to disruptions in the supply of materials and resources due to factors such as market volatility, geopolitical conflict, resource scarcity, environmental degradation, or regulatory change. It refers to the vulnerability businesses face when they rely on conventional supply chains that may become unstable, threatening production continuity, cost predictability, and long-term resilience. [Source]

Sector describes any collective of economic actors involved in creating, delivering, and capturing value for consumers, tied to their respective economic activity. For more information on our sectoral aggregations, please refer to the Methodology Document.

Sustainability-linked loans are debt instruments where the financial terms—such as interest rates or payment schedule—are tied to the borrower's achievement of predefined, ambitious, and measurable sustainability performance targets, typically expressed through KPIs. Sustainability-linked loans aim to improve the borrower's sustainability profile and are generally used for general corporate purposes. In the context of the circular economy, they can support businesses committed to increasing recycling rates, using recycled raw materials, or improving resource efficiency. [Source]

Transition finance refers to funding for companies that are actively working towards net zero. It involves lending to businesses with a science-based plan to reduce emissions in line with the Paris Agreement. Financial institutions increasingly view circular economy practices as a tool for climate mitigation, embedding circularity into broader transition plans. [Source]

Use of Proceeds is a requirement of green finance instruments where the capital raised must be allocated to specific eligible environmental projects. Use of Proceeds is a defining feature of green loans and bonds. In the context of the circular economy, Use of Proceeds refers to loans used to finance circular initiatives, particularly those that fall under 'circular economy adapted products, production technologies and processes' as defined in the Green Bond Principles. [Source]

Value chain encompasses the full range of activities in the different phases of production, delivery to consumers, and disposal after use. This concept includes the design, production, marketing, distribution, and support to the final consumer, with each step adding value to the product. [Source]



1 Introduction

As a concept, the circular economy is pivotal to developing an economic system that ensures the planet and all living beings can thrive[1] [2]—to make it happen, finance is needed to rewire systems of production and consumption, scale necessary innovation, and shift value toward regenerative, rather than extractive, forms of economic activity. While empirical research into the current state of climate finance is published regularly (OECD,[3] CPI,[4] MDBs[5]), this is not the case for circular economy finance. Climate finance research benefits from strong public attention, a standardised carbon dioxide equivalent (CO_2e) metric, and ongoing improvements in financial reporting. In contrast, the multi-dimensional nature of the circular economy makes it far more challenging to define and label financial flows as 'circular', as well as classify investments into the different categories that exist within the circular economy. Until reporting on circular economy investment is standardised and widely adopted in the financial sector, quantification will remain challenging. However, past attempts to estimate global, regional, or sector-level circular investments have been valuable in providing benchmarks, outlining methodological challenges, and offering recommendations as to how funding can be improved.[6] [7]

What is difficult to measure is difficult to manage: addressing this knowledge gap is crucial. As this report will illustrate, understanding how financial flows currently support the circular economy is essential to addressing society's overreliance on increasingly scarce natural resources.

The *Circularity Gap Report Finance* examines commercial investment—that is, capital raised by businesses—as this provides a key indication of the business case for the circular economy. The report aims to determine the baseline level of commercial circular economy investment, reinforcing its relevance to the financial sector as both a de-risking strategy and as an untapped opportunity to generate superior returns with less resources.



The risks of linearity: resource scarcity and economic instability

Relying on scarce resources is a growing liability. The global economy remains predominantly linear[8] and global material extraction is increasing exponentially, recently surpassing 100 billion tonnes per year.[9] Yet, the risks associated with resource depletion—and its far-reaching social and environmental implications—have been largely ignored in the current 'take-make-waste' system. Natural resources such as metals, non-metallic minerals and fresh water form the material backbone of our economies, which are themselves subsystems of the Earth's ecosystems. Resource depletion—the exhaustion of these natural resources due to overconsumption and unsustainable use—poses a profound threat. The current linear model depends heavily on continuous extraction to meet societal needs, making economies vulnerable to supply chain disruptions, price volatility, and heightened geopolitical instability and conflict. Resource security—the ability of countries, regions, and businesses to ensure a stable and affordable supply of materials—is becoming an urgent concern for economic stability.

At the heart of this economic risk is the environmental impact of resource use. Natural resource use is a key driver of the triple planetary crisis: climate change, biodiversity loss, and pollution.[10] Material extraction, consumption, and waste account for up to two-thirds of global greenhouse gas (GHG) emissions, 90% of biodiversity loss, and two-thirds of air-quality-related deaths.[11] Emissions continue to rise, reaching a record high in 2023 with a 1.3% increase from 2022.[12] Without intervention, resource demand will keep growing, pushing social, economic, and environmental systems closer to critical thresholds and tipping points.[13]

For financial market participants, regulators, and policymakers, recognising resource risk as a long-term economic threat is essential. In this context, the role of the circular economy as a risk mitigation strategy becomes clear. For financial market participants, the circular economy is crucial for de-risking portfolios and managing default risks. For governments, addressing resource risk is key to ensuring resource security, economic resilience, and ecological stability. Once these concerns are considered, the circular economy presents opportunities for enhanced financial performance and value creation becomes abundantly clear. In many cases, circular economy investments not only deliver strong risk-adjusted returns over the long term but also support non-financial goals such as net-zero commitments and biodiversity conservation.

Understanding resource risk

A critical yet overlooked threat, resource risk refers to the economic and operational vulnerabilities caused by resource scarcity, supply chain disruptions, and price volatility. While often discussed in the context of the circular economy—framed as the 'linear risk' of persisting with a take-make-waste model[14]—this report takes a broader view. We refer to resource risk to highlight its direct relevance for companies and financial decision-makers beyond the linear versus circular debate.

Why the circular economy?

The circular economy is a system that designs out waste, keeps materials in use for as long as possible at their highest value, and regenerates natural systems. By reducing material demand, extending product lifespans, using resources more efficiently and minimising environmental impact, it serves as both an opportunity for sustainable long-term value creation and a critical strategy for mitigating resource risk. Businesses play a central role in this transition, managing resource flows across global value chains. By adopting circular strategies—such as reuse, refurbishment, and recycling—they can generate more value from fewer resources, while regenerative production processes support overall ecosystem health. These approaches not only shield businesses from supply-side shocks but also enhance resource efficiency, leading to stronger financial performance.

Embracing circular economy principles enables businesses to build resilience against resource depletion while reducing environmental harm. Many companies are already cutting costs, managing risks, and optimising value through circular strategies. Resource efficiency measures that keep materials in use longer help decouple commercial success from resource consumption, reducing material input costs and strengthening business models. Recognising the systemic risks of resource depletion reinforces the need for ecosystem regeneration, natural capital replenishment, and a shift towards renewable materials. Moreover, evidence suggests that companies integrating circularity into their models face a lower risk of default, positioning the circular economy as a powerful de-risking mechanism for debt markets.[15]

The circular economy also presents a major macroeconomic opportunity. In Europe, applying circular principles across mobility, the built environment, and food could generate an economic benefit of €1.8 trillion (US$2.1 trillion) by 2030.[16] In China, scaling circular economy practices in five key sectors could save businesses and households CN¥70 trillion (US$10 trillion or 16% of projected GDP) by 2040.[17] However, despite its potential, global circularity is in decline. The *Circularity Gap Report 2025* shows a drop from 9.1% in 2018 to 6.9% in 2024, as material consumption surged—500 billion tonnes of resources were used in just five years, accounting for 28% of all material consumption since 1900.[18]

The financial sector plays a critical role in economic transformation, yet the lack of financial support has been widely cited as a major barrier to scaling the circular transition.[19 20 21 22 23 24 25 26 27] The sector determines which businesses gain access to capital for scaling circular solutions and is essential to assessing and pricing the risks of resource depletion.[28] The circular economy presents a largely untapped opportunity for the financial sector to enhance resilience and generate sustainable long-term returns. Understanding where these opportunities are most pronounced—and why they are not currently being leveraged—is essential. This report addresses that knowledge gap by analysing current circular economy investment patterns, identifying where opportunities for resource-efficiency gains are being missed, and determining the key reasons for this.

Aims of the *Circularity Gap Report Finance*

1. **Establish a global baseline for tracking commercial circular economy investment.**
2. **Analyse the factors influencing circular economy investment flows.**
3. **Determine how capital flows can leverage the circular economy as both an opportunity for superior long-term returns and as a key risk mitigation strategy.**

Methodological considerations

The circular economy in financial sector frameworks

The EU has integrated circular economy considerations into its sustainable finance framework through key legislative instruments, including the EU Taxonomy,[29] the Corporate Sustainability Reporting Directive (CSRD), the Sustainable Finance Disclosure Regulation,[30] and the sector-agnostic Categorisation System for the Circular Economy.[31] In May 2025, the International Finance Corporation (IFC) released the Harmonized Circular Economy Finance Guidelines. Building on existing circularity frameworks, the Guidelines serve as a practical tool for financial institutions and corporations to identify and evaluate circular economy projects.[32] This framework has been adopted as the foundation for this report's approach, as it offers a more intuitive approach for tracking investments globally.

However, this report differs from the Harmonized Guidelines[33] in a few key areas: most notably in how it breaks down business models into activity categories. The *Circularity Gap Report Finance*, like the Harmonized Guidelines, classifies investments based on how a business's primary activity contributes to the circular economy into three categories. However, the Harmonized Guidelines have an additional tag for '+Circularity Enablers,' which is added to products, services, business models, platforms, and tools that enable circularity across different segments of the materials life cycle, including increased intensity of use.

The three categories for circular business models are:

- **Design & Production:** Circular product design (modular, repairable, recyclable), sustainable material selection, eco- and bio-based design, and regenerative production methods.
- **Use:** The lifetime extension of products and assets through product-as-a-service, leasing, sharing models, repair, refurbishment, remanufacturing, and retrofitting.
- **Recovery:** Recycling, upcycling, deposit return schemes, waste prevention, resource recovery (wastewater, biomass), and cascading resource use.

Known investment in businesses engaging with the circular economy

While these initiatives provide valuable guidance for defining, qualifying, and reporting on circular economy investments, harmonised standards are yet to be introduced across all investor types and geographies.[34] [35] This remains a key challenge in the research process. Until such standards are established, methodological concessions must be made. As a result, this research focuses on 'known investment in businesses engaging with the circular economy'. The scope of this definition is broken down as follows:

'KNOWN INVESTMENT'

Only a limited number of financial institutions currently classify and disclose investments in the circular economy. As a result, a top-down approach—relying on existing financial reports to estimate circular economy investment—fails to provide a complete and accurate representation of investment flows. To address this limitation, the research underlying this report takes a bottom-up approach, aggregating individual investments at the deal level. The majority of this data has been sourced from proprietary data platforms that track investment. While comprehensive, these sources do not capture the full scope of all investments, and certain gaps are to be expected.

Due to these data limitations, the total investment volumes presented in this report should be viewed as conservative, low-end estimates. The most significant data gap is investment from businesses in projects, products, pilots or services related to the circular economy, but where the activity is not (yet) core to the businesses and where they have not used green- or sustainability-linked loans to raise the capital. Bonds are excluded due to methodological challenges in the determination of corporate issuers as circular, as well as the inability to quantify the actual use of proceeds for circular activities in bonds issued by non-circular businesses. Furthermore, investment in small- and medium-sized enterprises (SMEs) is likely underreported. Geographic disparities also exist, with EU and US investment data being more widely available than that of other regions. As a result, the most valuable insights come from the proportions of investment—the distribution across funding sources and supported sectors—rather than absolute figures. These proportions are therefore the primary focus of this research.

'IN BUSINESSES'

This report specifically tracks finance through external capital raised by businesses in any case that can be considered as 'available market finance', excluding all public funding not provided directly to businesses, corporate investments, and mergers and acquisitions. By focusing on market finance—capital available to any prospective business—it aims to capture commercially deployed capital, ensuring the results reflect the circular economy business case. As a result, the compiled dataset serves as a baseline for assessing the growing business case for the circular economy over time. However, it is important to note that the reduction of overall resource consumption—a central principle of the circular economy—is not typically recognised as a commercial opportunity and is better addressed through policy rather than business activity. Because such activities are not well captured by investment data, among other reasons, spending levels alone should not be interpreted as a direct measure of circular economy impact.

'ENGAGING WITH'

The term 'engaging with' is used to reflect the two distinct types of commercial circular finance captured in this research:

Circular business models: This refers to investment in businesses whose primary activity significantly contributes to circular economy objectives.

Businesses transitioning to circularity: This refers to investment in linear businesses that have raised capital specifically to support their transition to circularity. This research tracks the proportion of green loans and sustainability-linked loans used for circular economy purposes. The proportion is determined by the specific Use of Proceeds or key performance indicators (KPIs) linked to the investment conditions. It should be noted that these instruments do not encompass the breadth of transition finance. Further details can be found in the Methodology Document.

'THE CIRCULAR ECONOMY'

For the purposes of this report, an activity is considered to contribute to the circular economy if it directly supports the transition away from the linear economy. To be included, a business's primary activity or transition incentive must have a direct impact on the level or type of resources used to meet the given end. In practice, the circular economy is a complex concept with broad socioeconomic and environmental implications. This report focuses specifically on impacts on resource use to emphasise the need for systemic change away from linear consumption patterns. This approach also helps to avoid the unfeasible challenge of making value judgments about the inclusion of every investment depending on its overall social, environmental and economic impact. This is a further point of departure from the IFC Harmonized Guidelines, which seeks to only classify the activities that go beyond business as usual.

By focusing on resource use, this scope may include some activities that, despite their contribution to circularity, have potentially negative environmental consequences across the value chain. For example, repair and maintenance services for an oil refinery would be included in this research. Conversely, certain environmental initiatives that do not directly address resource use are excluded. This means that projects related to renewable energy, public transport, and conservation fall outside the scope of this report. A full breakdown of the selection criteria is available in the supplementary Methodology Document.

Time frame of analysis

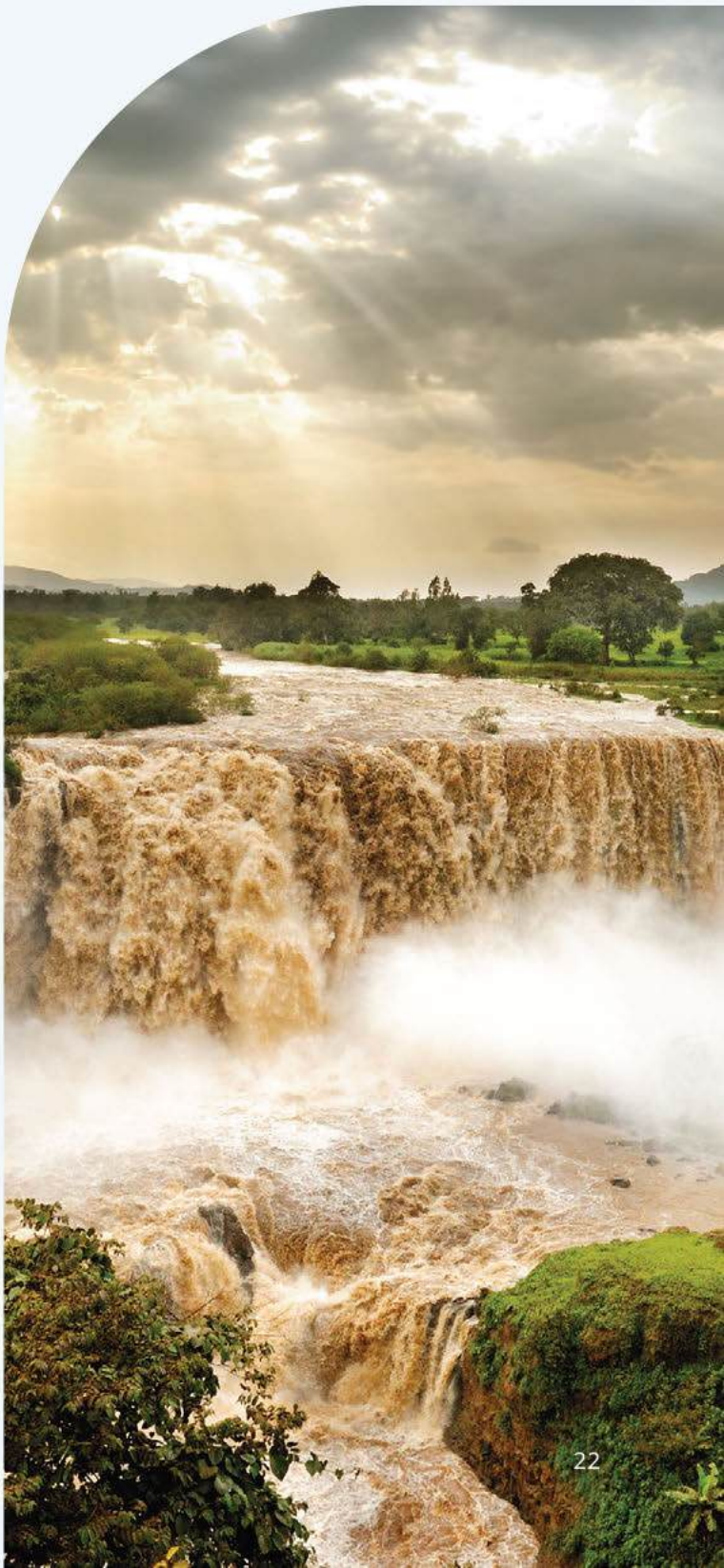
The temporal scope of this report encompasses transactions and financial flows between 2018 and 2023. This period was chosen to allow for accurate estimation of average circular economy investment levels while also aligning with the *Circularity Gap Report 2024* framework developed by Circle Economy. This consistency facilitates comparability with the global Circularity Metric and enables ongoing tracking of long-term trends in circular economy investment. By incorporating a multi-year approach, this research offers a comprehensive view of the evolving landscape of circular economy investment and serves as a basis for the future analysis of circularity trends over time.



2 Mapping investment flows

Financial sources and instruments for circular businesses

Access to finance is a critical enabler of the circular economy, determining which innovations scale, which business models thrive, and how industries transition away from linear practices. Understanding where circular investment comes from—and how it flows through the system—offers valuable insight into the financial landscape shaping circularity. This chapter explores the key sources of financing, from investment banks to angel investors, as well as the few public institutions directly supporting circular businesses. It also examines the financial instruments used to deploy these funds, ranging from grants and loans to equity investments. In addition to identifying who provides funding and how it is structured, the chapter considers the geographic dimension of investment, highlighting where capital is concentrated and how financial flows vary across different regions and markets. The following sections present the research findings with sufficient context for clear interpretation, while analysis, conclusions, and value judgments are highlighted separately to ensure clarity. For a full breakdown of definitions and scoping decisions regarding financing sources and instruments, please refer to the Methodology Document.



2.1 Finance sources and regional trends

The growing business case for the circular economy

Total finance provided to businesses engaged in the circular economy fluctuated significantly between 2018 and 2023. In 2023, commercial investment reached US$28 billion—a substantial increase from US$10 billion in 2018, but a decline from the peak of US$42 billion in 2021 (Figure one). After a dip in 2020, funding surged to an all-time high in 2021 before gradually decreasing, with 2023 figures returning to levels similar to those of 2019. These fluctuations align with broader trends in global economic activity and investment, including the slowdown of climate finance in 2020 and the impact of global GDP shifts.[36] [37] Factors such as the economic effects of the covid-19 pandemic and subsequent recovery measures, including public stimulus packages, likely influenced these trends. Despite these fluctuations, overall investment grew substantially over the period, signalling that the business case for the circular economy is growing.

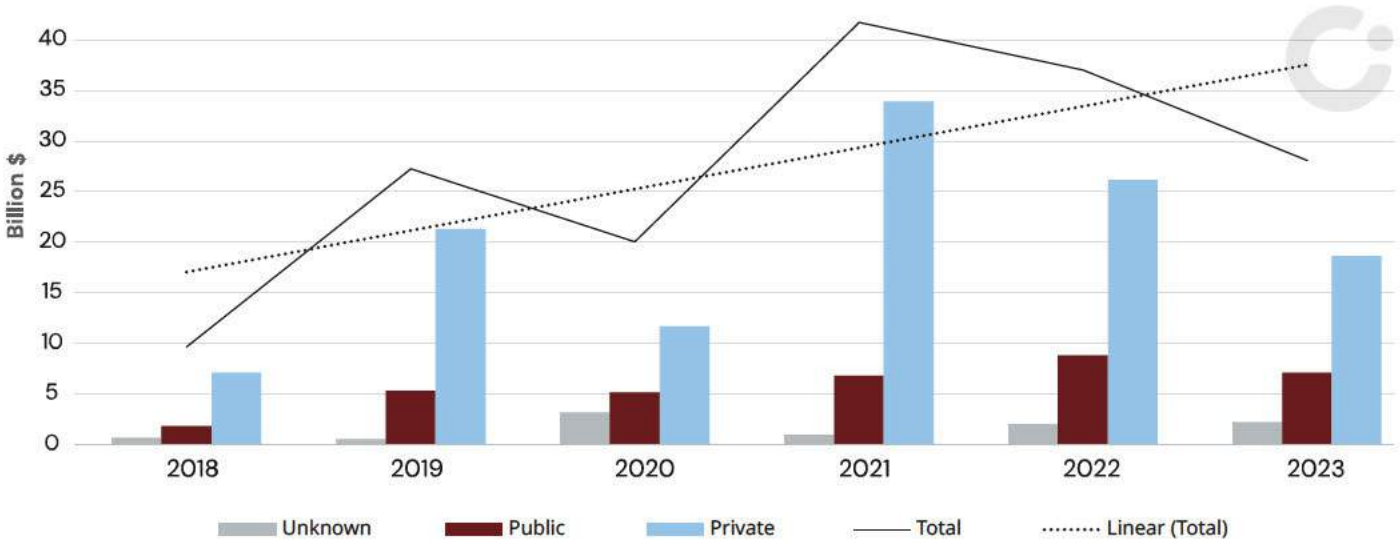
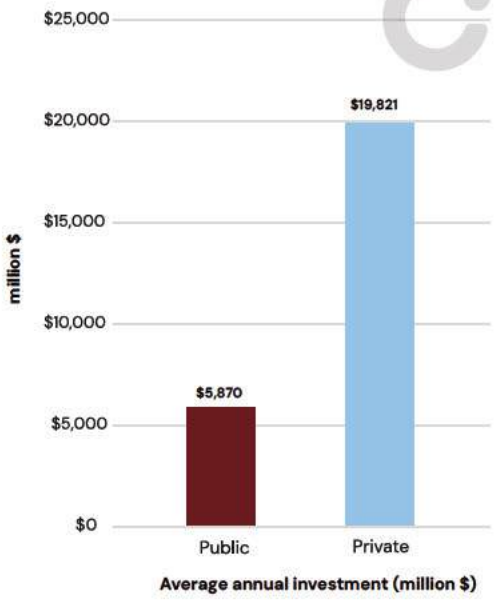


Figure one displays the absolute volume of capital flowing to businesses engaged in the circular economy per year between 2018 and 2023. The data is broken down by source of finance, distinguishing between public and private funding.[38] A linear line of best fit is also included to illustrate the overall trajectory of investment activity over the period.

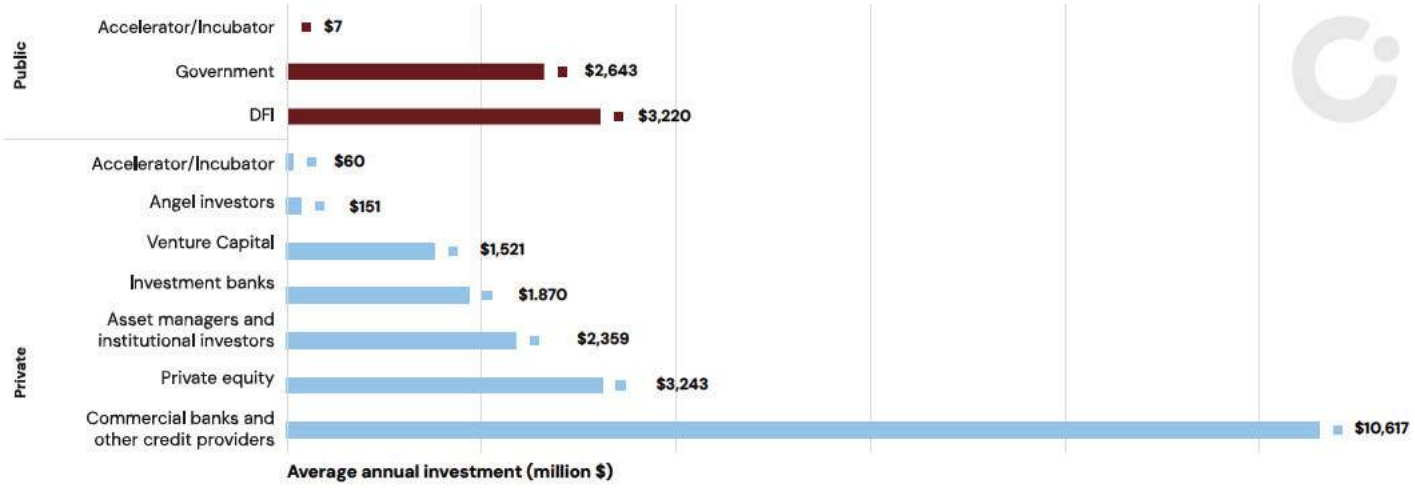
Over the six-year period, total known investment in circular economy businesses amounted to nearly US$164 billion from both public and private sources, averaging US$27 billion annually (Figure four). Based on the in-scope finance sources of this report and the associated timeframe, this amount represents approximately 2% of total commercial investment. These investments came from a mix of public and private finance, with private capital experiencing more pronounced fluctuations. In contrast, tracked public finance remained relatively stable, showing a steady upward trend with an average annual growth rate of 46%.

Figure two (A&B) displays the annual average investments in businesses engaged in the circular economy between 2018 and 2023. The data is segmented by source of finance—public and private—and further distinguished by the different financial market participants in scope (see page 16).

A



B



Public finance: A smaller role in commercial investment

Public sources contributed approximately US$6 billion in commercial funding per year on average, accounting for 22% of tracked investment. The two key sources of public finance are governments and development finance institutions (DFIs). DFIs are the largest contributors of the two, providing approximately US$3.2 billion annually. As a result, DFIs represent the third-largest source of investment for businesses engaging with the circular economy, contributing 11.8% Of all tracked investment between 2018 and 2023 (Figure three). That being said, DFI investment in the circular economy is somewhat underrepresented in this report, as our focus is on commercial investment. DFI funding is often deployed at the project level, supporting specific programmes, infrastructure, or risk-sharing mechanisms, which fall outside the scope of this research.

Governments follow DFIs with an annual contribution of US$2.6 billion, representing 9.7% of tracked investment. Of this amount, 70%, or US$1.8 billion each year, is invested in Europe, where the public sector plays an active role in financially supporting circular economy ventures with equity finance as well as grants. This support comes through initiatives such as the EU Horizon programme, the European Investment Fund and the European Innovation

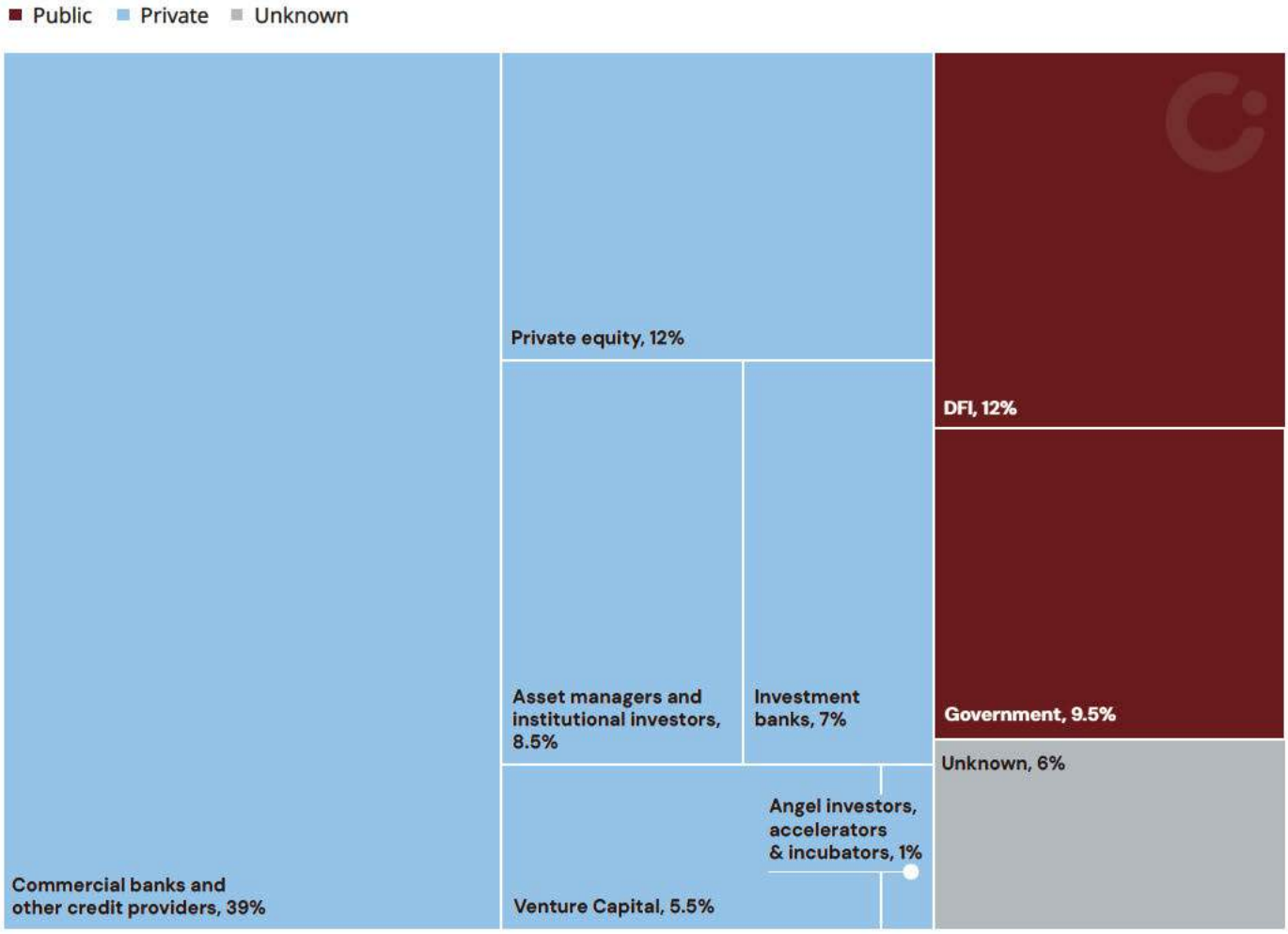


Figure three illustrates the proportional distribution of investment in businesses engaged in the circular economy over the period 2018 to 2023. Each segment represents the share of investment contributed by a different source, with the area of each segment reflecting its relative contribution to the overall investment volume. Angel investors as well as public and private accelerators and incubators, while playing a role in supporting early-stage ventures, represent only a very small proportion of total investment. Due to their minimal share, they are not labelled in the figure.

Council, among others. Government funding is however predominantly composed of grants, where non-repayable funds are provided directly to businesses. It is important to note that subsidies are not considered 'available market finance' and are excluded from this analysis.[39]

The smaller share of public financing compared to private investment is consistent with the scope of this research. This analysis focuses exclusively on investment in businesses, excluding project-level and programmatic funding, prominent among DFIs, and policy-based approaches, which are more relevant to government funding. While these forms of investment likely account for significant volumes, they do not directly reflect the circular economy business case, which is the focus of this research. Additionally, regional development funds and regional policy instruments have been excluded due to challenges associated with data capture.

Private finance: banks drive circular economy investments

Private sector actors are the dominant force in financing circular economy businesses, contributing an average of US$20 billion annually over the six-year period, or 73% of total investment. This share has grown consistently over the period. While public finance often prioritises social or policy goals, private finance is driven by the expectation of commercial returns, making its prominence a strong signal of economic opportunity. The rising levels of private investment indicate the growing business case for the circular economy as an investment opportunity.

Among private finance sources, commercial banks and other credit providers played the most significant role, committing nearly US$11 billion annually on average—accounting for 38.9% of total investment during the period. Investment banks also contributed significantly, adding US$1.9 billion, or 6.8%, to the total. Typically, banks assess investments based on factors like creditworthiness, cash flow stability, and asset collateral, often favouring businesses with predictable revenue streams and a clear ability to repay loans. In the circular economy, banks support both asset-heavy projects that generate steady cash flows and established linear businesses transitioning to circular models through new business approaches.

Traditional equity investors, including private equity, asset managers, and institutional investors, provided the remaining share of private finance, contributing an average of US$7.4 billion annually. Private equity sources accounted for US$3.2 billion (11.9% of the total), while institutional investors contributed US$2.4 billion (8.6%), a figure that will be significantly lowered by the exclusion of both bonds and investment in

Development finance institutions and the circular economy

DFIs are increasingly recognising the circular economy as a valuable approach to supporting sustainable development. Recently, multilateral development banks have established a Circular Economy Working Group, releasing a 'shared vision' to clarify their expectations for recipients, as well as further reports following initial engagement within the Circularity Exchange.[40] [41] Separately, the Joint Initiative on Circular Economy, a coalition of national promotional banks and institutions, is committed to developing circular economy models as a key element of Europe's sustainability transition.[42]

While these groups have made some positive steps towards improved reporting on circular economy investment, the data sources leveraged for this research provided very limited information on DFI investment. To address this gap, US$14 billion of the total DFI investment was determined through direct contact and surveys with prominent actors in this category, representing 74% of the total DFI data captured.[43]

public markets. Early-stage risk capital investors, such as venture capital, angel investors, and accelerator programmes, supplied the final 6.3%, averaging US$1.8 billion per year. An additional US$1.6 billion annually was recorded, but the specific type of investor was not identified in the data.

Regional trends: Europe leads in circular investments

Circular economy finance is highly uneven across regions, with Europe receiving the most significant share of funding (Figure four). European businesses attract an average of US$15.5 billion annually, which accounts 57% of all global circular economy investment and more than all other regions combined. North America and Asia follow, receiving US$5.8 billion and US$3.6 billion respectively, representing 21% and 13% of the total investment.

It is important to note that data availability challenges are more prevalent outside of Europe and North America, which is likely to skew the geographical findings in favour of these two regions. This analysis captures the location of the recipient businesses' headquarters rather than their global operations, so while investments may appear concentrated in these regions, funding could be distributed worldwide through supply chains. It is likely that significant circular economy investment also flows to Asia, particularly in manufacturing and agriculture, but significant data gaps remain in this area. In some regions, waste management activities are largely facilitated by informal economies that do not typically engage in external fundraising through traditional channels, leaving these activities uncaptured. [44]

Regions with the lowest overall commercial circular economy investment—such as South America and Africa—appear to rely more heavily on public sector funding. In these regions, 48% of investments are sourced from public funds, a stark contrast to North America, where only 1% of circular economy investments come from the public sector. It should also be noted that public sector investment in circular economy businesses is likely higher in Europe than the figures suggest, as some of this public funding is funnelled through intermediaries such as venture capital funds, which is classified as private investment due to the deal-level approach taken in this research and the VC fund as the allocator of the capital.

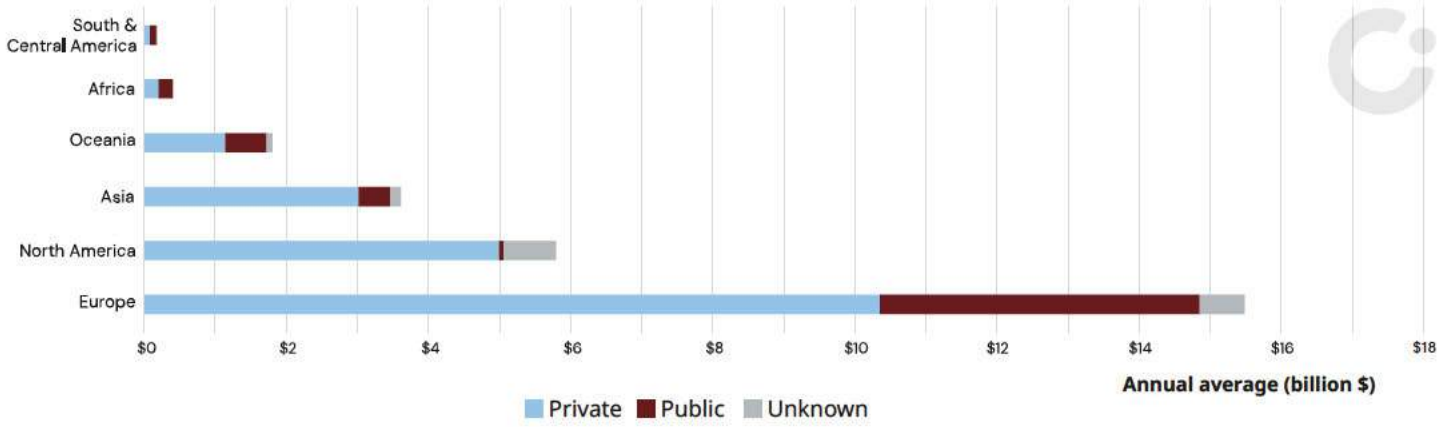


Figure four depicts annual investment in businesses engaging with the circular economy by region. This figure presents the overall investment amounts, segmented by region and distinguished by funding source (public versus private). Only deals with a specific regional allocation are included; multiregional deals have been excluded. Annual averages calculated with 2018–2023 data.

How can policy shape and develop circular finance?

Comparing the EU and North America

An active government's role is to develop a policy mix that combines pricing, norm-setting, and stimulating measures to advance social, economic, and environmental goals. Pricing mechanisms adjust financial incentives to encourage or discourage specific activities. Norm-setting establishes legal and regulatory standards to enforce compliance, while stimulating measures support voluntary action, innovation, and capacity-building. A well-balanced mix ensures effectiveness by aligning market incentives, legal frameworks, and supportive measures to drive progress towards determined objectives.

Government intervention may include providing direct financial support to businesses, as tracked in this report, but far more often it involves establishing policies and regulation as part of the policy mix. One of the most significant examples, and the single largest circular economy policy initiative globally, is the *Circular Economy Action Plan* (CEAP), introduced by the EU in 2020 as part of its Green Deal.[45] The CEAP has been a key driver in shaping circular economy policies, including stricter product design regulations, the enhancement of the 'Right to Repair', and the introduction of higher recycling targets across sectors like electronics, textiles, and packaging. It also strengthens Extended Producer Responsibility (EPR) requirements and promotes the use of digital product passports. The EU has more recently unveiled the *Clean Industrial Deal*, which will further develop the circular economy in the region as a means for reducing unstable resource dependence.[46] The *Circular Economy Act*, expected in 2026, proposed by European Commission President Ursula von der Leyen and led by Jessika Roswall, the Commissioner for Environment, Water Resilience, and a Competitive Circular Economy will further accelerate those developments.[47]

To assess the potential impact of these policy changes on private commercial investment, it is insightful to compare trends in the EU and North America[48]—two similarly developed economic regions with comparable levels of data availability (Figure five). In the period 2018–2020—the three years prior to the introduction of the CEAP—EU investment in circular economy business models was 47% higher than in North America over the same period. In the three years following the launch of the CEAP, 2021 to 2023, investment in the EU soared, growing to an amount 70% higher than in North America during the same period. Investment volumes in the EU alone were 62% larger in the three years following the CEAP's introduction compared to the three years prior.[49]

There are several factors that could influence these investment figures, and so a direct causal relationship between the CEAP and the spike in investment cannot be definitively established. However, the scale of the increase and the breadth of the CEAP suggest that the policy measures have likely played a role in supporting the business case for circular economy initiatives. This, in turn, appears to have contributed to the growth in investment received by circular economy businesses in the EU.



Figure five illustrates private sector investment in businesses operating a circular economy business model before and after the 1st of January, 2021, when the CEAP was first introduced in the EU.

2.2 Financial instruments leveraged for circular economy investments

Circular economy finance is deployed through conventional methods

Grant funding is the dominant source of public sector support for circular economy businesses. Over the six-year period analysed, 69% of all government funding was issued as grants (Figure six). While philanthropic grants also contribute to the funding pool, they account for a much smaller portion, representing just 1% of the total grant investment during the period.

Conventional equity investors such as venture capital and private equity firms primarily deploy equity financing. Over 90% of their investments are made through equity deals—providing capital in exchange for ownership stakes in businesses. Private equity firms, however, also use significant amounts of debt to finance certain transactions, which is captured within the buyout or leveraged buyout category of debt finance. This debt capital, typically provided by banks, has been categorised as investment from the banks for the purpose of this analysis.

Banks and other credit providers operate almost exclusively through debt, lending funds to businesses with the expectation of repayment with interest. DFIs follow a similar model, relying primarily on debt finance but also offering some grant funding. Ultimately, both public and private sector actors in the circular economy utilise a combination of grants, equity, and debt, reflecting the financing structures typical of traditional financial markets.

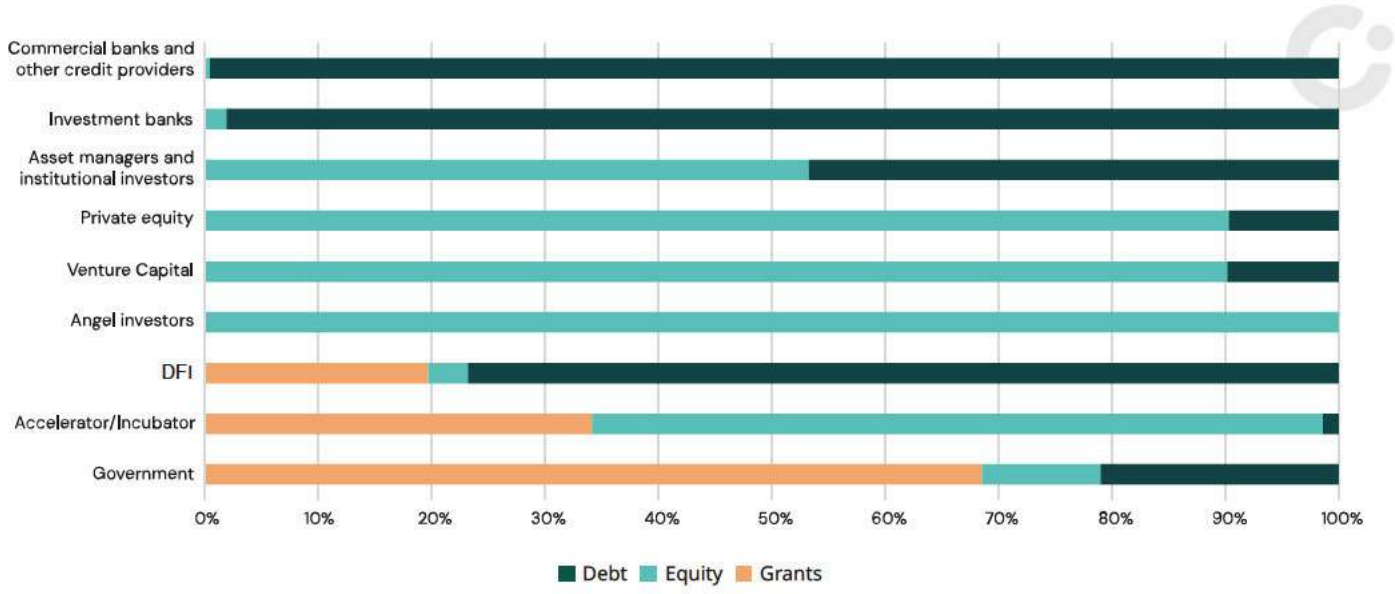


Figure six illustrates the distribution of financial instruments used by financial market participants for circular economy investments based on their total investment data from 2018 to 2023. Participants are ordered according to the predominant use of debt, followed by equity, and finally, grants.

Debt: The dominant force behind circular economy financing

Debt instruments represent 60.7% of all tracked circular economy investment, amounting to an average of US$16.6 billion per year. This is primarily driven by financing for businesses transitioning to circularity. In this case, this is reflected in the capital raised by linear businesses through green loans—financing instruments in which proceeds are exclusively used for eligible environmental projects—and sustainability-linked loans—loans where financial terms are tied to the achievement of sustainability KPIs. Despite representing the largest proportion of investment, tracked debt volumes are still expected to be an underestimation due to the lack of accurate data on actual use of proceeds from bonds. While capital raised through bank bonds is not excluded from the data, it is only captured by the *Circularity Gap Report Finance* methodology if the funds are specifically allocated to a circular economy business. Corporate bonds are excluded because there is not enough data to determine the exact portion invested in the circular economy, nor access to a bond database that provides sufficient information to categorise the issuing businesses themselves as circular.

Sustainability-linked loans account for more than half of all tracked debt. This indicates that a substantial portion of the capital is raised by linear businesses, which then benefit from more favourable repayment terms if they meet circular economy KPIs. General debt directed to businesses with circular business models accounts for 15.6% of all investment, 6.9% is debt leveraged for private equity buyouts, while green loans account for 4.8% of commercial circular finance over the six-year period (Figure seven).

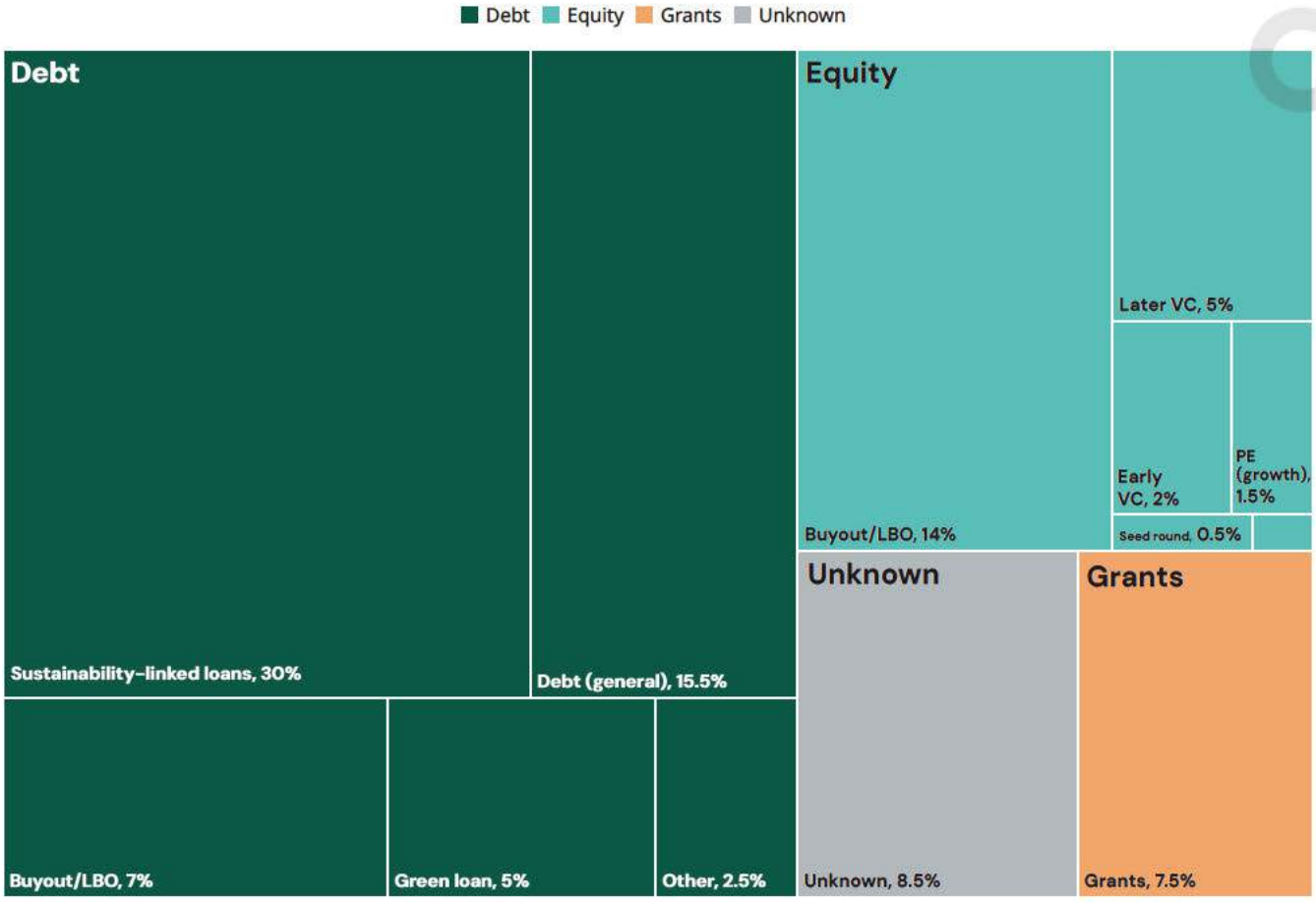


Figure seven illustrates the distribution of instruments and deal types used to finance businesses engaged in the circular economy. The size of each segment represents the proportion of investment made of that type from 2018 to 2023.

How relevant and effective are green and sustainability-linked loans in advancing the circular economy?

In the climate space, there is ongoing debate around how to best mitigate climate change impacts.[50] One side advocates for prioritising the development of zero-emission sectors like renewable energy while the other emphasises the need for significant investment in hard-to-decarbonise industries. Transition finance, designed to support these sectors, has emerged as a solution. Rather than focusing solely on sectors with inherently low environmental impact, it targets industries that need substantial capital to adopt sustainable practices, including linear companies transitioning to circular economy practices.

Two of the most established instruments for financing transitions are green loans and sustainability-linked loans. Green loans are debt instruments that allocate funds to sustainability projects defined in the Use of Proceeds agreement. Sustainability-linked loans, on the other hand, offer favourable repayment terms if recipients meet pre-determined sustainability KPIs, allowing broader use of funds. By analysing the proportion of stated Use of Proceeds and KPIs that relate to resource concerns or circular economy objectives, across all green and sustainability-linked loans issued between 2018 and 2023, this report provides estimates for the amount of capital raised through these instruments for circular economy purposes. Our findings reveal that these two instruments play a key role in advancing the circular economy. Between 2018 and 2023, they accounted for 35.7% of all commercial circular economy investment, averaging US$9.7 billion annually. Sustainability-linked loans were the most popular, with US$8.4 billion per year, while green loans averaged US$1.3 billion annually (Figure eight).

Rather than classifying deals based on the business models of companies transitioning to circularity—which are often still largely linear—this analysis categorised all Use of Proceeds and KPIs into the three circular economy categories: Design & Production, Use, and Recovery.[51] This approach provides a clearer understanding of how transition instruments incentivise circularity and address resource risks at scale.

Green loans, while broad in scope, support activities with direct environmental benefits, such as GHG emissions reduction, energy efficiency, sustainable resource use, land management, and biodiversity conservation, in line with the Green Loan Principles. Green loans often support Design & Production strategies in the circular economy, where interventions such as alternative materials, regenerative production processes, and resource-efficient manufacturing can significantly reduce resource consumption. However, green loans do not specifically address resource efficiency as a standalone concern, which means that circular business model innovations, typically Use models, focused on extending product lifetimes—such as repair, refurbishment, and remanufacturing—are unable to raise capital through these instruments.

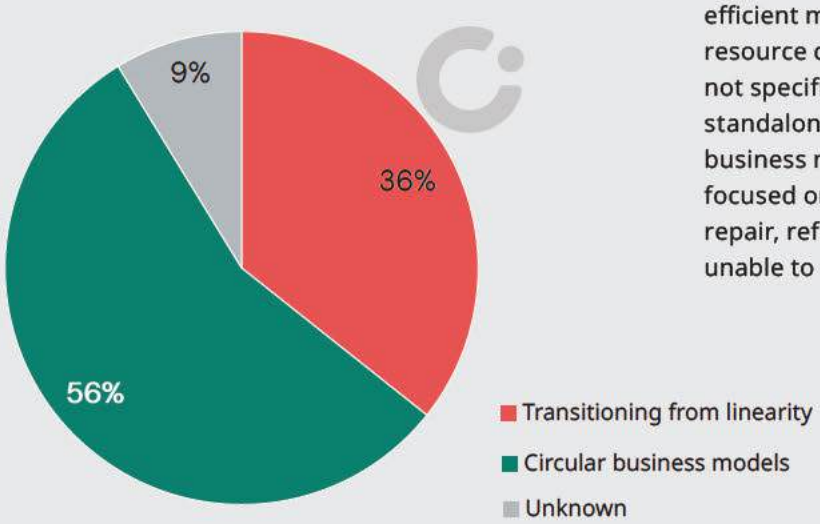


Figure eight illustrates the proportion of circular economy financial flows allocated to businesses where the primary activity contributes to the circular economy versus linear businesses looking to transition.

Analysing the proportion of KPIs that relate to resources or circularity only, sustainability-linked loans reveal similar trends. Our analysis shows that over 50% of these circular economy businesses focus on Design & Production strategies, mainly targeting waste prevention, packaging changes, and to a lesser extent the use of recycled or second-hand materials. Around one-third of KPIs focus on Recovery, with most centred on increasing recycling practices and managing food and material waste. Only 5% of KPIs support Use strategies, such as offering refurbished products and circular services to consumers. Notably, there is a lack of incentives for service-based business model innovation, such as product-as-a-service, which is a core component of Use models. Combining the associated circular economy investment volumes from green and sustainably-linked loans, we see that 84% of all circular transition investment supports Design & Production activities, while only 1% supports the development of Use models, as reflected in Figure nine.

An issue with sustainability-linked loans is however the nature of many of the KPIs established in the earlier years of their use, where historically they focused on operational improvements rather than systemic shifts in resource use. For example, initiatives such as reducing office paper consumption have been classified as Design & Production interventions but of course fail to mitigate resource risk in any meaningful way. What's more, only one-quarter of all resource-related KPIs included specific and quantifiable targets, limiting their effectiveness in measuring progress and fostering innovation.

Despite these limitations, sustainability-linked loans offer more flexibility than green loans, and recent improvements suggest a step in the right direction. Financial institutions are increasingly adopting science-based KPIs tied to industry standards, moving away from superficial operational targets. This shift makes it easier to align transitioning finance with company-wide circularity goals, fostering deeper business model transformation and long-term systemic change.

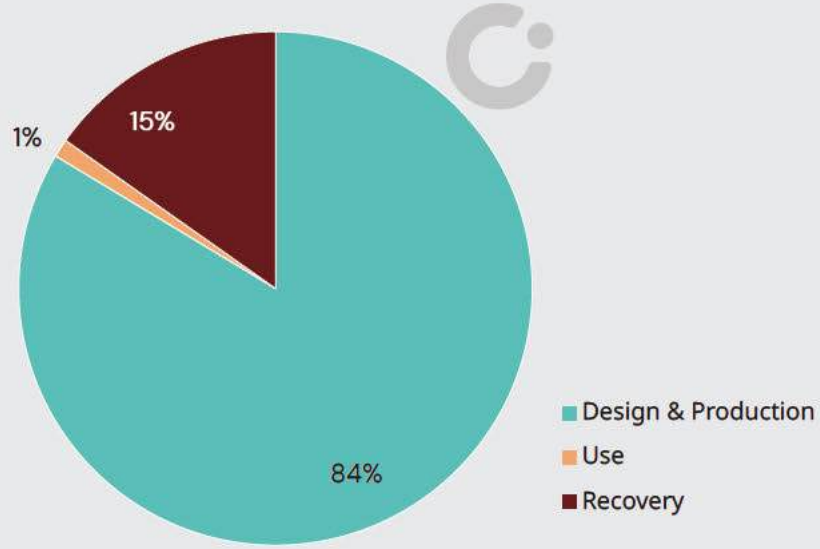


Figure nine visualises how finance directed at businesses transitioning from linearity is distributed across the three primary circular economy strategies based on the loan's KPIs or Use of Proceeds focus.

Scaling circular innovation: A circular economy 'valley of death'

Equity investment accounts for 23.2% of the total tracked investment in the circular economy and grew substantially over the six-year period. Between 2021 and 2023, total equity investment was 154% higher than in the 2018 to 2020 period, reflecting growing expectations in the future success of circular ventures.

Within this landscape, acquisition finance dominates. Buyouts alone make up 14.2% of total investment, though this category fluctuates significantly year on year. The number of deals remains relatively low—just 59 over the six-year period—but the average deal size is substantial, at US$573 million per transaction. Meanwhile, equity leveraged for growth and expansion remains lower in volume, totalling US$2.3 billion across 303 deals. At this stage of business maturity, debt financing plays a critical role, with much of the capital raised coming from banks, as reflected in Figure ten.

Venture capital also plays a role. Later-stage venture capital, referring to Series C and beyond, accounts for 4.9% of total investment. Early-stage venture capital represents a smaller share, standing at 2.1%. While investment volumes at the pre-seed and seed stages are significantly lower, deal activity is strong in comparison. Over the six-year period, more than 1,000 deals were made in circular businesses at this early stage—accounting for half of all tracked equity deals.[52]

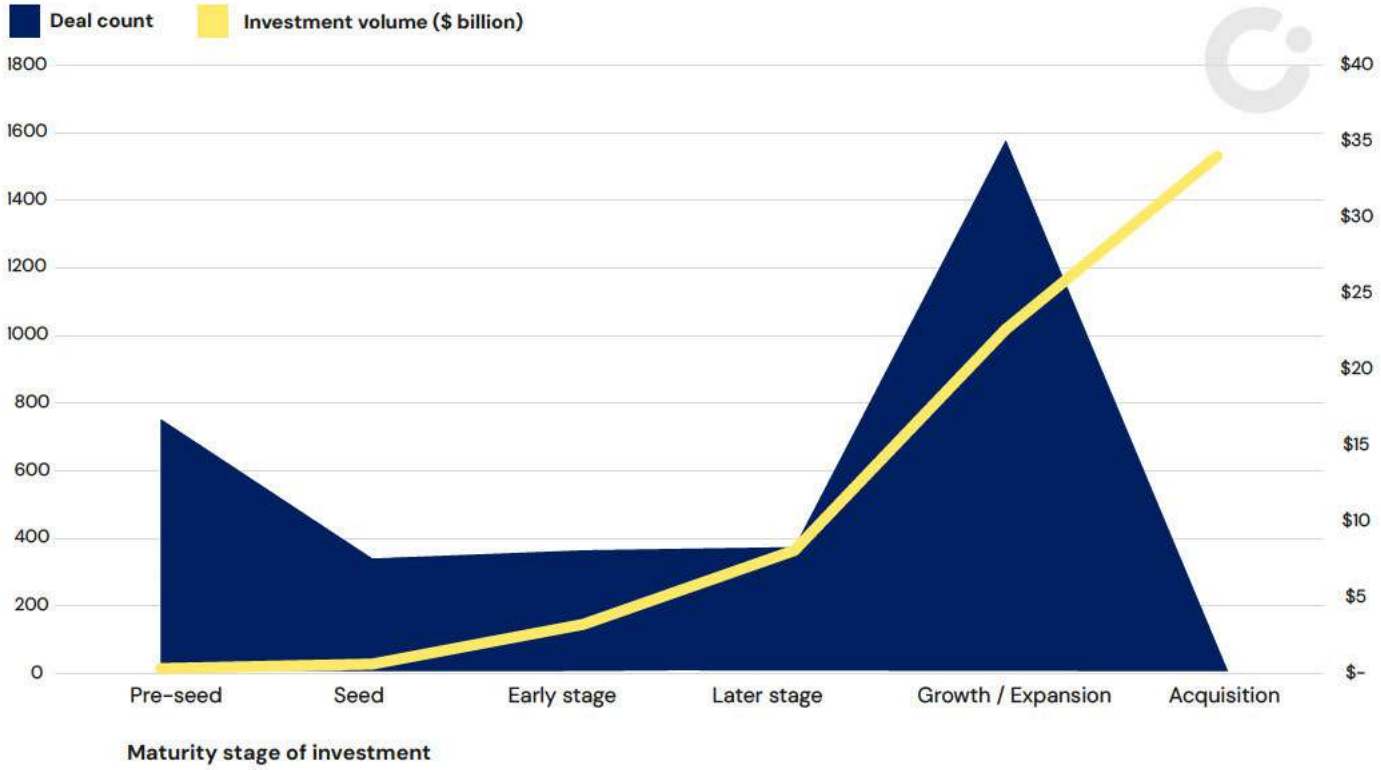


Figure ten displays investment in circular business models from 2018 to 2023, excluding grants. It segmented by business maturity stage and funding source. The horizontal axis represents six distinct stages of business maturity; the primary vertical axis measures deal counts, while the secondary axis displays total investment in US dollars. Only deals with available data on the maturity stage have been included in this analysis.

These findings highlight a persistent challenge: a pronounced 'valley of death' in circular economy financing. While early-stage ventures often receive support to develop proof-of-concept, many struggle to secure the capital needed to scale. The high number of pre-seed deals—752 over the six years—demonstrates a vibrant startup ecosystem backed by accelerator programmes and angel investors. Yet, the fact that early-stage venture capital investments match later-stage venture capital investments in deal count, despite having significantly lower ticket sizes and investment volumes, raises concerns about the ability of circular startups to access further capital as they scale.

Broader investment trends suggest that established circular businesses can secure substantial capital once their business models have been proven at scale, with ample growth/expansion financing supported by debt (Figure 11). However, while there is strong entrepreneurial interest and early-stage support for circular economy ventures, many struggle to raise the necessary capital to scale, as revenue streams are still being developed. Although this challenge is not unique to the circular economy and is a common across many startups, similar findings have emerged in other circular economy research—such as studies on the dutch economy and global economy.[53] [54] Addressing this financing gap will be crucial to ensuring that early-stage innovation in circular business models translates into long-term, scalable impact.

Stage	Average ticket size (million $)	Average % equity acquired
Pre-seed	$ 0.5	11%
Seed	$ 2	25%
Early stage	$ 9	26%
Later stage	$ 21.5	23%
Growth and Expansion*	$ 14.5*	30%*
Acquisition	$ 573	98%

Table one shows average ticket size and equity acquired at each stage of maturity.

* Most of the investment volume for growth and expansion is debt—the US$14.5 billion includes debt and equity, while the 30% figure is the average proportion acquired from the equity investment only.

Why might the circular economy face a pronounced 'valley of death'?

Innovation has always been a driving force behind systemic change,[55] reshaping markets and rendering old industries obsolete.[56] Yet, even the most promising innovations can struggle to scale if they fail to secure external capital at critical stages of development. If the 'valley of death' is particularly pronounced in the circular economy, then high-impact startups likely encounter funding gaps between early-stage development and commercial viability.

In the circular economy, innovation takes two main forms: technical innovation and business model innovation. Technical innovation focuses on new materials, processes, and technologies, primarily within the Design & Production phase. Business model innovation, on the other hand, reimagines how goods and services are provided. Both forms of innovation ultimately serve to improve material recovery and enhance resource efficiency. For the circular economy to fulfil its promise of mitigating resource depletion and shifting industries away from linear models, these innovations must reach a scale that allows them to restructure entire markets and institutions. However, circular economy innovation faces a number of challenges.

1. Characteristics of circular economy businesses

Circular economy ventures often require substantial upfront capital—whether to invest in the physical assets needed for service-based models, to support labour-intensive repair and refurbishment, or for material-based R&D. Unlike digital startups, which can scale rapidly with relatively low capital investment, circular economy innovations frequently involve material innovation, industrial processing, and complex supply-chain dependencies. These characteristics make them slower to commercialise and less immediately attractive to investors accustomed to the fast returns of software and AI startups.[57]

2. Investor risk perception

Investor perceptions further exacerbate the challenge. Many investors lack the technical expertise to evaluate non-traditional business models and material innovation risks, leading to a general underestimation of their financial viability.[58] Resource risk—despite its growing importance—is often overlooked in mainstream risk models unless such risks are directly tied to climate-related concerns. Additionally, circular economy startups often face the issue of innovation capture, where financial returns are distributed across supply chains rather than accruing directly to the innovator. Until clear revenue-sharing agreements are put in place, this adds another layer of risk for early-stage material innovators.

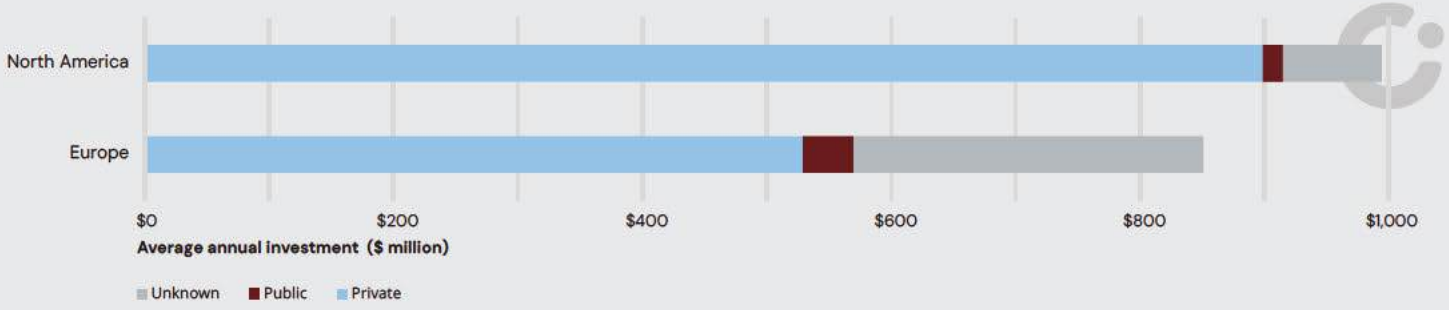


Figure 11 depicts average annual seed, early-stage, and later-stage investment in circular economy businesses in Europe versus North America (2018–2023). The bars represent the average annual investment over this period, segmented by the source of capital (public, private, or unknown).

3. Market dynamics

Many material innovations rely on securing specific, often niche, secondary materials. Even when a proof of concept is established, difficulties in accessing a stable supply of materials can prevent a startup from scaling. The costs of transaction and coordination in material innovation may be sufficient in reducing their perceived potential when compared to the more logically scalable approach of digital innovation.

4. Make up of the venture capital market

The venture capital landscape itself influences innovation financing. While Europe has a policy environment that strongly supports the circular economy,[59] its venture capital market is significantly smaller than that of North America, which dominates this space as a result (Figure 11). Stringent regulations on institutional investment restricts private capital from flowing into European venture capital markets, leaving much of the burden of financing circular economy innovation to public entities such as the European Innovation Fund.[60]



3 Destinations of investment flows

Circular categories and sectors supported

This chapter examines how capital is allocated within the circular economy, mapping investments across traditional sectors and circular business model categories. Financial flows are grouped into four main business model categories: transitioning, which refers to linear businesses leveraging transition instruments for circular economy purposes, then the three categories of circular business model, Design & Production, Use, and Recovery. Only businesses whose primary activity is considered to contribute to the circular economy are categorised as circular business models, illustrating whether capital is directed upstream—towards redesigning products and production processes—or downstream, towards extending product lifespans and material recovery. Analysis pertaining to circular business models therefore does not include capital raised for transition purposes and these figures will not match with the leading visual depicting circular economy capital flows as a result.

With this in mind, current capital distribution is uneven. Most funding supports Use and Recovery business models, backing initiatives like recycling, resale platforms, and repair models. In contrast, investments in Design & Production—where innovations in materials and sustainable manufacturing could drive transformative change—remain limited. By mapping these financial flows, this chapter highlights trends and gaps in the activities that investment supports. Although this chapter largely focuses on presenting investment trends, additional analysis and key insights are provided separately to clarify the distinction between objective findings and their broader implications.



3.1 Circular economy business model categories

Recovery and Reuse businesses receive the bulk of circular business model finance

For the circular economy, business models can be grouped into three broad categories: Design & Production, Use, and Recovery. [61] The data reveals a strong concentration of investment, with 92% of circular business model funding directed towards Recovery and Use models, while Design & Production receives significantly less (Figure 12).[62 63] Between 2018 and 2023, nearly 50% of all investment in circular business models was directed towards Recovery models, such as recycling, waste management, composting, and waste prevention. Use models also received substantial investment, accounting for 42%, primarily supporting business models that extend product life spans—such as second-hand marketplaces, product-as-a-service models, repair and refurbishment services, and rental or sharing platforms.

Despite their transformative potential, businesses in the Design & Production category received only 8% of total investment in circular business models. This category plays a crucial role in addressing resource concerns by preventing virgin resource use. Designing products and systems with circularity in mind offers opportunities to eliminate waste, create products that can be easily disassembled and repaired, and limit resource extraction in ways that downstream interventions cannot achieve. Approaches like modular design, design for recycling, and the development of bio-based materials can help realise these goals in material cycles, while agroecological and regenerative production practices can support circularity in biological cycles.[64 65]

The uneven distribution of investments across the three circular economy categories may reflect their inherent financial characteristics. Recycling plants, for instance, are highly capital-intensive, whereas product redesign typically requires less infrastructure investment. Additionally, Design & Production initiatives are often piloted and funded internally, through businesses' working capital or R&D budgets, rather than through external investments. When such initiatives are not central to a company's business model, they may fall outside the scope of this research and remain unaccounted for.



Understanding the key circular categories

Circular design & production

This category focuses on the integration of circular economy strategies during the design stage or in production. Design examples include a variety of approaches that ensure products are modular, repairable, reusable, recyclable, and traceable. It also encompasses production processes that reduce the use of virgin materials, increase efficiency through recycled or bio-based inputs, and foster positive socioeconomic and ecological outcomes. This is achieved through regenerative or nature-inclusive production methods that emphasise sustainability and environmental impact reduction.

Circular use

The circular use category is centred on extending the lifespan of products and assets. This is accomplished through models such as leasing, sharing platforms, and product-as-a-service, which promote the reuse and longevity of goods by maintaining ownership of the asset. Additionally, this category includes activities like repair, refurbishment, retrofitting, and remanufacturing, all aimed at ensuring products remain functional for as long as possible.

Recovery

Recovery focuses on the collection and sorting of end-of-life materials for reuse or recycling. It includes activities such as deposit return systems, material recovery, upcycling, recycling, and waste prevention. This category also emphasises resource recovery from various waste streams, including wastewater and biomass, as well as cascading resources from waste to new products or materials.

These three categories reflect the stages of the Value Hill model: from adding value before use, to circular use, and recovering it after.

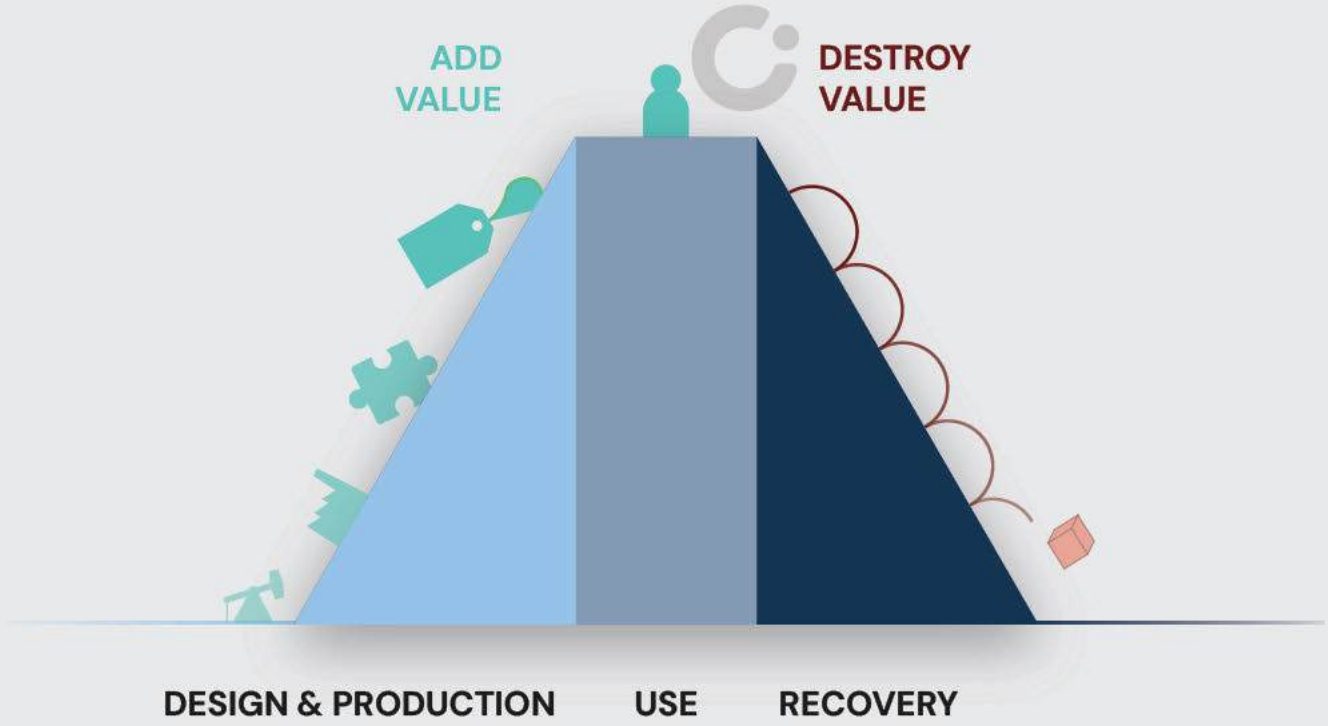


Figure 12 visualises the Value Hill model, which illustrates how economic value is created, maintained, and recovered across the lifecycle of materials and products.

Banks prioritise Recovery while equity investors diversify

Financial market participants distribute their investments differently across the three circular business model categories. Banks, asset managers, private equity firms, and DFIs overwhelmingly direct capital towards Recovery and Use business models, with minimal funding allocated to design & production. Investment banks, for instance, channel 77% of their funding into businesses focused on Recovery, while commercial banks allocate 62% to the same category. As Figure 14 illustrates, private equity investors show a stronger preference for use businesses, dedicating 56% of their investments to this area, 41% to Recovery, and only 3% to Design & Production. In contrast, venture capital, government-backed programmes, and accelerators take a more diversified approach, supporting a wider range of circular strategies. Notably, early-stage risk investors and public initiatives are the only sources of funding for Design & Production business models.

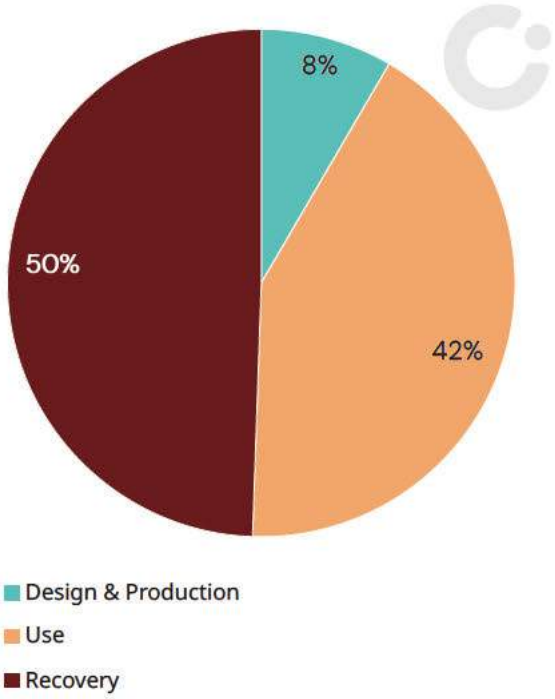


Figure 13 visualises the distribution of investment across three primary circular economy categories. This captures financial flows to companies that have business models where the primary activity is considered to contribute to the circular economy. Funding directed at companies still transitioning from linear models is not included.

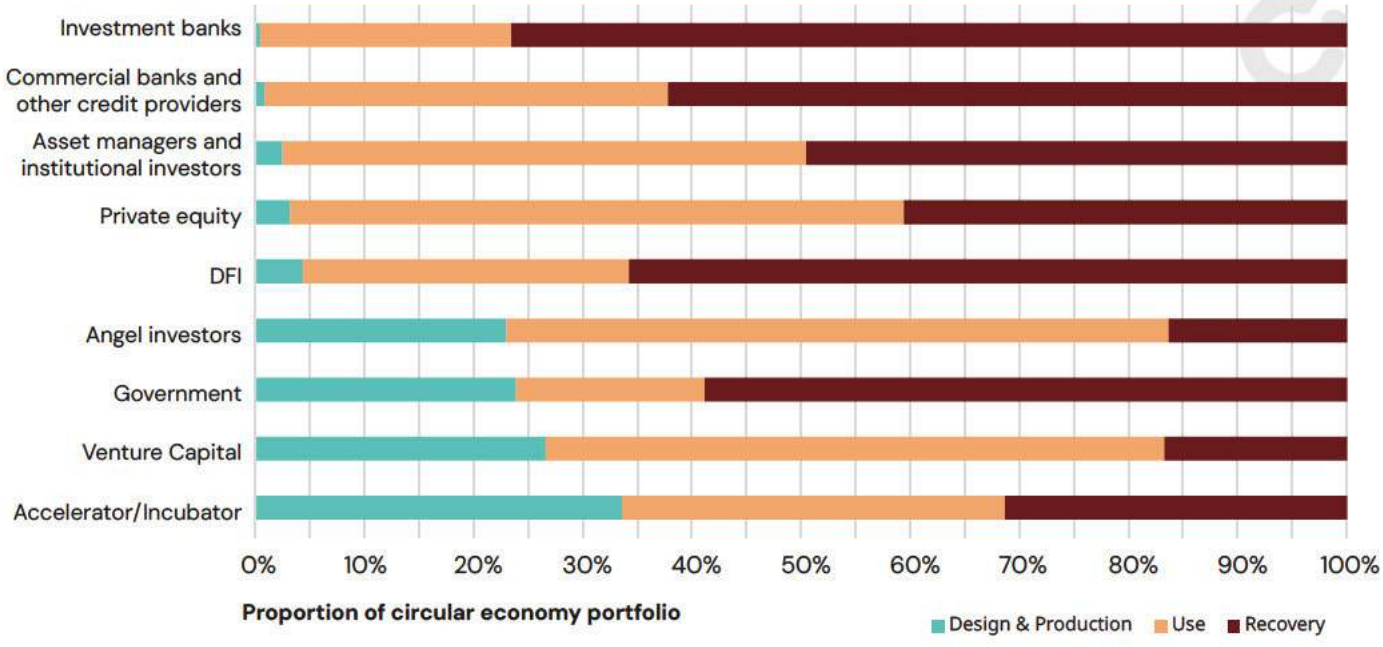


Figure 14 illustrates the proportions of investment volume that financial market participants allocate towards different categories of circular business model.

Why do different financial market participants invest in different circular economy business models?

The makeup of circular economy investment portfolios is seemingly tied to investor risk tolerance and the cash flow structures of circular business models. Banks, as debt investors, are inherently risk-averse and tend to favour businesses with stable revenue streams and tangible assets. This preference explains their strong support for Recovery models, which benefit from regulatory-driven demand and, in some cases, public-sector risk-sharing mechanisms. While recycling operations do carry risks—such as fluctuating commodity prices and insurability challenges—waste management policies across many industries create a more predictable investment environment.

Business models within the Use category—particularly leasing, rental, and product-as-a-service businesses—introduce balance sheet complexities. These models often require substantial upfront asset procurement, creating cash flow challenges before recurring revenue is established. Lenders may also perceive ownership-based service models as risky due to assumptions about linear asset depreciation. However, private equity, venture capital, and angel investors—who might actively seek business model innovation—are better positioned to navigate these challenges. Digital marketplaces within the Use category, such as second-hand platforms, align well with venture capital's preference for scalable, tech-driven business models. For the investors that are able to assess the long-term value of circular use models, the benefit is the stability of service contracts and the predictability of recurring revenue streams.

Investment in the Design & Production category, by contrast, involves research into the design and utilisation of alternative materials—whether bio-based or from open or closed loop secondary sources, and involves the engineering of new products, processes and technologies. Many early-stage investors and accelerators play a crucial role in de-risking these innovations by providing technical mentorship, lab access, and pilot funding—all essential for startups working on incorporating bio-based materials, zero-waste production methods, and next-generation circular design principles. Additionally, Design & Production innovations often come with strong intellectual property potential, a key factor that attracts venture capital due to the promise of high value exits and competitive barriers.

3.2 Sectors supported by circular economy finance

Most circular economy finance flows towards Transportation and Agrifood & Water

Commercial investment in the circular economy has been most prominent in the Transportation and Agrifood and Water sectors, with businesses in these industries receiving an annual average of US$6.2 billion and US$6 billion, respectively. Together, these sectors account for nearly half of all global circular economy investment. Beyond these leading sectors, Electronics and IT; Plastics, Chemicals & Rubber; and Construction also received significant funding. Electronics and IT attracted an average of US$2.3 billion annually, while Packaging (excluding plastics), Chemicals & Rubber, and Construction received US$2.2 billion and US$2 billion, respectively (Figure 15).

While Metals, Minerals & Mining, Packaging, and Textiles attracted lower overall levels of investment, these sectors experienced the most significant growth over time. Comparing the three-year periods before and after the 1st of January 2021, investment in Packaging (excluding plastics) increased sevenfold, while Metals, Minerals & Mining surged tenfold. Textiles also experienced impressive growth, with investment rising nine times compared to pre-2021 levels. In contrast, investment in Transportation and Agrifood & Water grew at a steadier pace, increasing 1.7 times and 1.2 times, respectively.

Despite varying rates of growth, all sectors saw strong investment in the latter half of the six-year period. This trend has been particularly evident in europe, where policy frameworks are increasingly being put in place to support the growth of the circular economy. The sector categorisation used in this report are based on those in the EU's *Circular Economy Action Plan*, highlighting the potential for continued growth in the region.

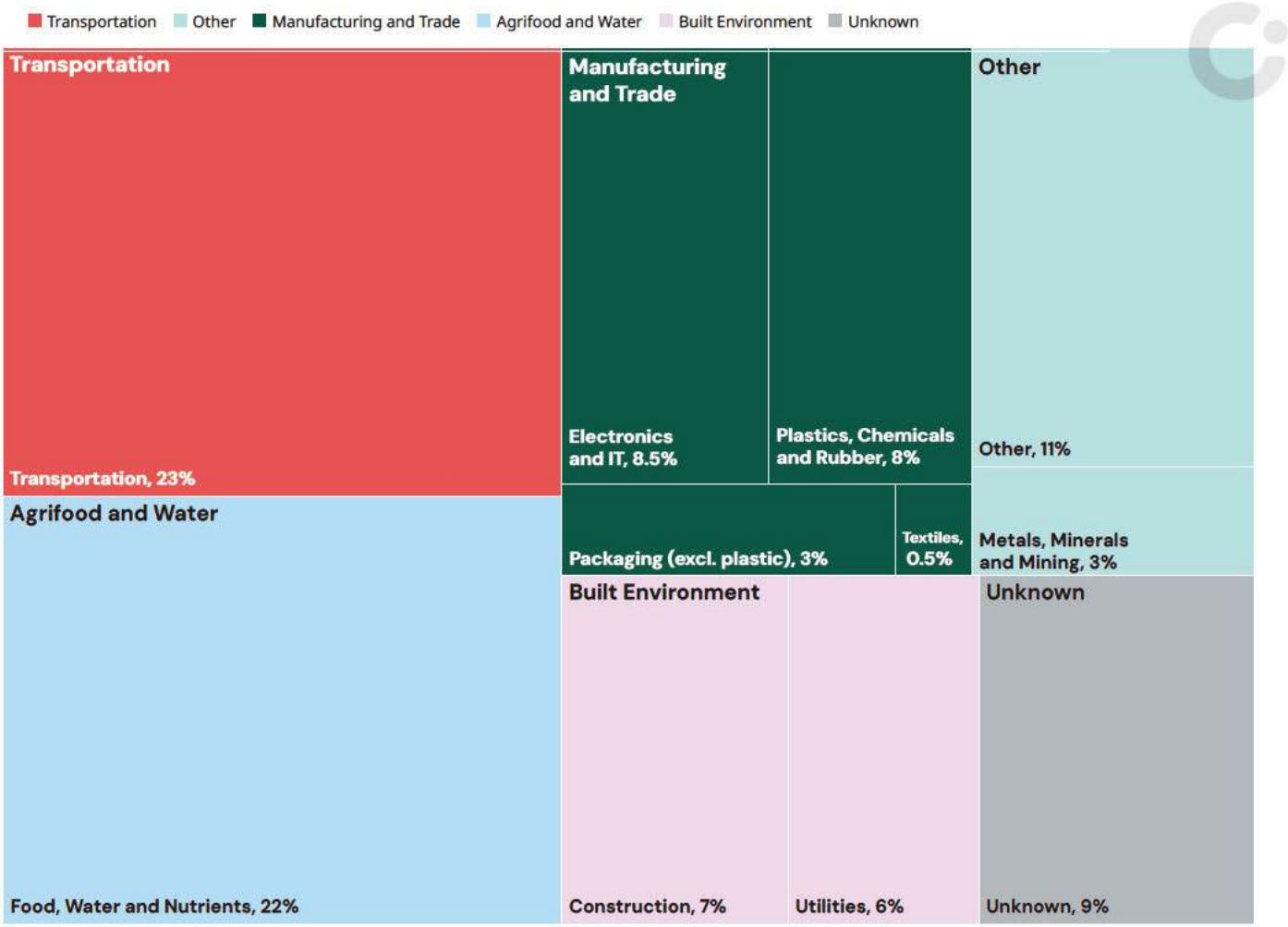


Figure 15 displays the distribution of circular economy investments by sector based on the total tracked investment in this analysis for the period 2018 to 2023.

Circular finance: concentrated in established business models

Over 50% of all finance for circular business models occurs in three key areas: Use models in Transportation (26%), Recovery models in Agrifood & Water (16%) and Use models in Electronics & IT (9%), as seen in Figure 16.[66]

In **Transportation**, the use category accounts for 73% of all circular business model finance in the sector, averaging US$4 billion annually. Notably, 90% of this funding is directed towards the automobile industry. Conventional automobile repair services receive US$1.8 billion per year, while rental agencies attract US$0.5 billion annually. Another US$1 billion is allocated to businesses offering both repair and rental services. These findings indicate that one-fifth of all tracked investment in circular economy business models (excluding finance directed to businesses transitioning from linearity) flows into vehicle repair and rental services.

In the **Agrifood & Water** sector—which encompasses food cultivation and processing, water management, and organic waste management activities—76% of circular business model investment is directed towards recovery strategies, amounting to US$2.4 billion annually. One-third of this investment (US$0.8 billion per year) supports companies that convert organic waste into new products, such as compost, biogas, and other bio-based products. More than 50% of the funding is directed towards organic waste management businesses, though many do not specify how the recovered waste is ultimately processed or used.

In **Electronics & IT**, 77% of circular business model investment is directed towards activities within the use category, amounting to US$1.4 billion annually. This funding is almost evenly split between two key areas: online platforms and marketplaces that enable second-hand sales, exchanges, and rentals receive 55% of investment (US$0.7 billion per year), while repair, refurbishment and maintenance services for electronic products attracts 43%, or US$0.7 billion annually.

While each of these activities contribute to resource efficiency in some way, they generally represent quite conventional circular economy models that do not challenge business-as-usual practices. Notably, in each of these sectors, alternative models exist that deliver better outcomes with lower resource inputs, yet do not receive as much funding. The findings suggest that circular economy financing is concentrated in 'business as usual' applications of circular strategies or principles, where existing consumer demand, opportunities for asset value retention, and established revenue models drive some circularity, but not in a way that fundamentally shifts our relationship with resource use.

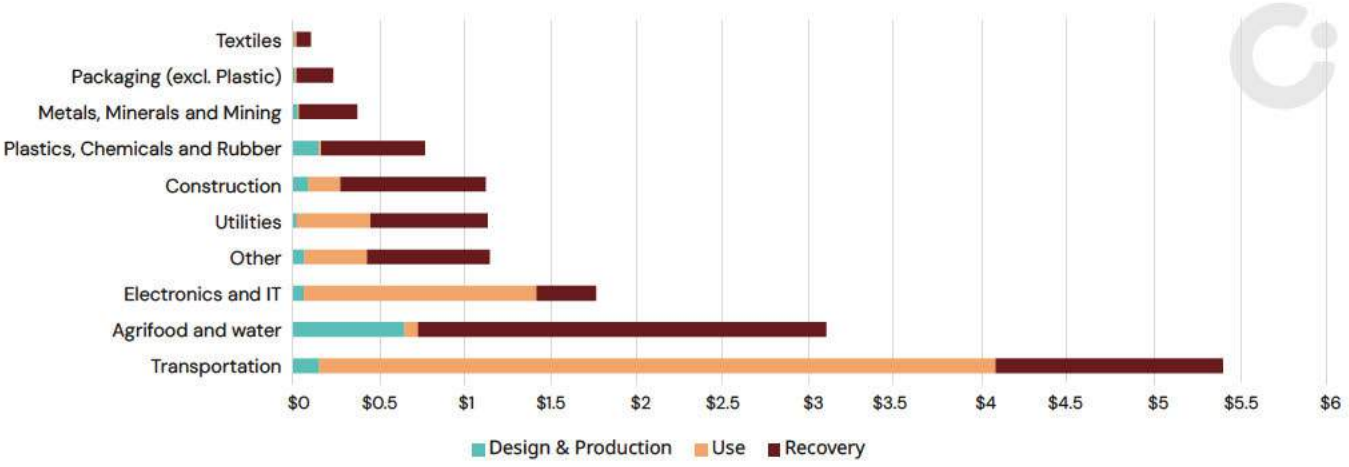


Figure 16 illustrates the average annual investment in businesses (in billions of $) with a primary activity that contributes to the circular economy, per category, meaning funding directed for companies transitioning from linear models is not included.

In transportation, investment in automobile repair and rental services focuses on maximising returns from durable, high-cost assets rather than challenging private car ownership for exploring its alternatives. In agrifood, funding prioritises waste recovery solutions that generate marketable byproducts, but these do little to address waste creation at its source or apply regenerative principles to improve yields. In Electronics & IT, capital likely flows towards resale and refurbishment due to high residual value, yet opportunities to rethink product design and material flows remain underfunded.

If it is the case that investment is predominantly directed to applications of circular business models that align with traditional business incentives, **this raises the question of whether financial actors are overlooking more transformative opportunities that could generate both competitive returns and greater systemic resource efficiency by shifting consumption patterns and reducing material dependency.**



Capital flows in the circular economy are not proportionate to sectoral resource use

Our findings indicate that circular economy investment is heavily concentrated in specific business models within specific sectors. Notably, car rental and repair, refurbishment and second-hand sales of electronics, and organic waste recovery together receive over 35% of total circular business model investment. This finding suggests that resource concerns may not be a primary driver of circular economy investment today.

To examine this hypothesis at the macro-level, we compared sectoral resource use consumption with the circular economy capital raised in each sector. Using proprietary data from the *Circularity Gap Report 2025* we found that between 2018 and 2023, there is only a modest positive relationship between sectoral material footprints and circular economy investment received. The relationship was slightly stronger for capital raised by linear businesses transitioning to circular economy practices. While concessional finance is limited, it's crucial to direct investment flows towards high-impact areas, especially for lender portfolios. However, even in transition finance, this relationship remains only moderate.[67]

Climate impact per sector, as determined by sectoral GHG emissions, is also compared here. Interestingly, the correlation between sectoral circular economy investment and climate impact is stronger than that between investment and resource use, which could indicate that climate is a bigger incentive to invest in the circular economy than resources are. The proportions of capital raised, associated resource use, as well as associated climate impact per sector are presented in Figure 17.

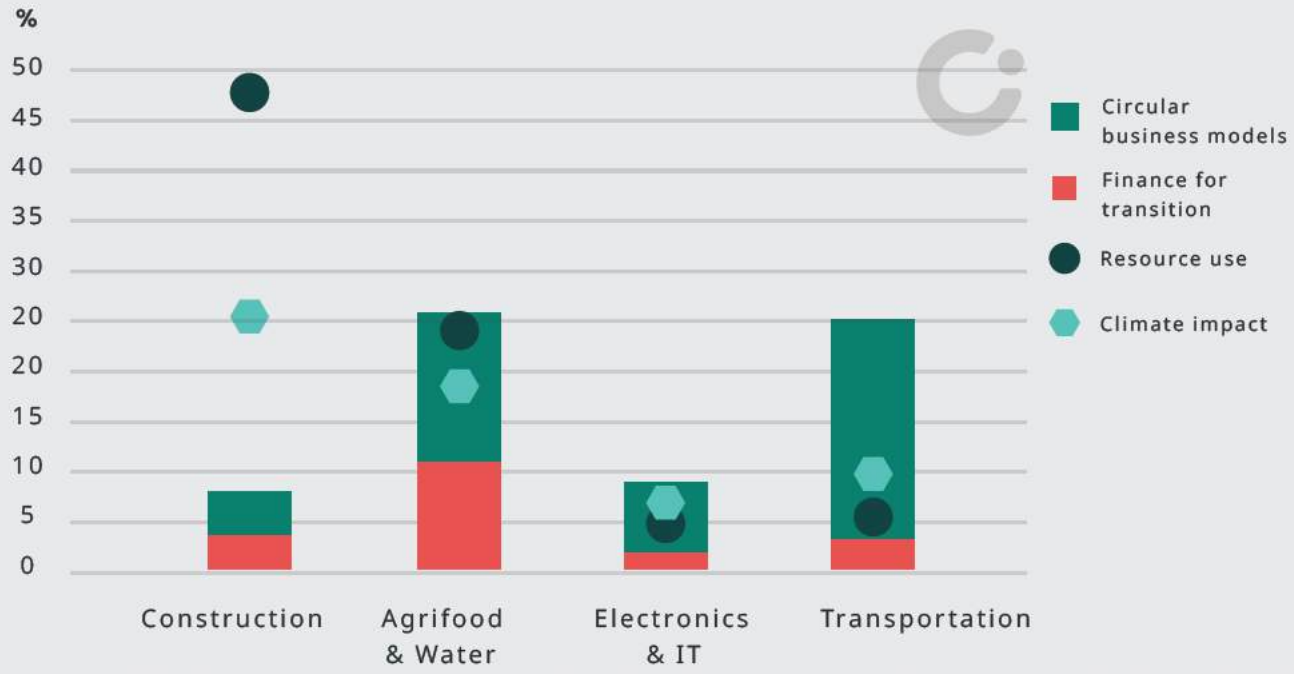


Figure 17 presents the share of circular economy investment allocated to each sector (bars), alongside each sector's contribution to global GHG emissions and resource use.

In the Agrifood & Water sector, investment received is relatively proportional to sectoral resource use. Agriculture, responsible for 20% of global resource use due to land-use change and high farming inputs, is the second largest contributor to resource consumption and receives 24% of the total tracked investment. However, most of these funds are directed towards recovery initiatives such as organic waste collection, and it remains uncertain whether these nutrients are safely returned to the soil or upcycled in a way that reduces overall resource use.

Construction is the largest contributor to global resource consumption due to the heavy materials required for developing and operating buildings. It accounts for 48% of total resource use, but only receives 8% of the total tracked investment. Like Agrifood, most construction investment is focused on recovery initiatives, such as downcycling construction waste, which is often used for low-value purposes like backfilling roads. While these efforts help to reduce some material waste, they do not significantly reduce the demand for virgin resources or mitigate the impacts of resource extraction.

For Transportation, the proportion of capital raised exceeds its share of resource consumption. Responsible for just 5% of global resource use, it receives 25% of total tracked investment—more than any other sector. This disproportionate investment is largely directed towards businesses focused on the repair and second-hand sale of automobiles—two activities that extend the life cycle of vehicles but do not fundamentally alter society's relation to transportation—and is therefore likely exacerbated simply by societal reliance on car travel.

The economic and environmental impact of resource use ranges considerably between different materials and resources, but these findings suggest that macro-level circular economy investment patterns are not aligned with the sectors where circular economy business models have the most potential to drive resource efficiency gains. Both within and between sectors, resource concerns nor resource efficiency gains appear to be a key driver of circular economy investment. **The critical question is: why is the financial sector not currently leveraging the dual opportunity provided by the circular economy—both as a driver of resource-efficient value generation and a critical approach to de-risking portfolios from growing resource-related risks?**

4 The circular business case

An untapped opportunity for the financial sector

The circular economy is not just an environmental imperative, but an opportunity for businesses to generate additional revenue through prolonged and optimised use of products and materials. In industries facing rising costs and uncertain access to critical resources, circular strategies offer a dual advantage: increased resilience and improved long-term commercial success.

This chapter positions that the apparent lack of investment in high-impact circular applications is not due to a flaw in the business case itself: businesses can extract more value from fewer resources, securing a competitive edge in increasingly constrained markets. What's more, circular approaches often support decarbonisation, further proving their merit. For the financial sector, this represents a clear investment opportunity, with circular businesses proven to generate superior risk-adjusted returns.[68]

Instead, finance and accounting norms ensure that circular business cases are **undervalued**, while the associated risks are **overestimated**. Compounding this, market dynamics and a misaligned policy landscape leaves the business case itself **undeveloped** in many cases. This chapter explores the extent of these challenges to understand why many high-value circular economy opportunities remain largely untapped.



The logic of the circular economy business case

The findings of this analysis suggest that some circular economy initiatives are more suited to receiving external funding than others, particularly those with tangible assets that serve as collateral. Models involving high-value, durable assets with a mature secondary market—such as in transportation and electronics—tend to attract more investment, as their resale and leasing potential provides a predictable revenue stream. In contrast, businesses operating more innovative models, such as retained ownership, product refurbishment, urban mining, or modular design receive significantly less externally raised capital than businesses applying traditional rental, lease, and resale models, despite offering several advantages to investors.

When comparing the business case of these activities, it is clear that circular business models are most compelling when they go beyond typical repair, resale or recycling to maintain ownership of assets to keep products and components in use for longer, generating recurring revenue as a result. [69] Models such as product-as-a-service, performance-based services, or refurbishment allow assets to be maintained for far longer than in a one-off purchase model, or leveraged use products to generate new product lines. Retaining ownership, the active management of assets, and the development of a reverse logistics approaches allows businesses to generate revenue from the increased utilisation of products, while preserving and leveraging their residual value at a determined end of useful life—all of which improve return on investment.

Material innovation and resource substitution are other compelling circular business cases. Companies using secondary raw materials—such as recycled metals, plastics, or construction waste—can reduce input costs, improve supply chain resilience, and respond to tightening environmental regulations.

The challenge in these models in raising capital, it seems, do not stem from any fundamental issue with the logic of the circular business case, but rather in how the business case is perceived, assessed or hampered by prevailing market conditions and policy. As such, leveraging the extent of the opportunity the circular economy provides involves understanding and addressing the way in which circular business models are valued, how resource risk is addressed, and reforming the policy environment such that barriers to circularity are removed.



How financial and accounting norms undervalue the circular business case

The common financial challenge for circular business models, especially those focused on retained ownership, is access to working capital. Where traditional businesses receive upfront payment from product sales, service models experience delayed and sometimes unpredictable revenue streams.[70] This complicates short-term financial planning and, critically, deters investors seeking immediate returns. Another challenge is the difficulty of estimating residual asset value. Standard financial models often assume that assets depreciate to zero, yet circular business models demonstrate that assets can retain significant value through retained ownership and the preventative maintenance made possible as a result. Without reliable market data to support residual value projections, investors perceive higher risk in financing these models.

Financial norms and prominently used ratios exacerbate these challenges by failing to accommodate the circular economy's value propositions. Standard accounting practices assume linear depreciation, which does not reflect the extended lifespan or secondary market potential of assets present in many circular business models.[71] As a result, perceptions of the financial health of circular businesses often undervalue the true economic reality and the upside of increased cash flow from the same products and materials. Additionally, considering the assets provided as a service as a liability on the balance sheet has significant implications on bankability, undermining the long-term stability of service contracts. This misalignment leads to circular business models being perceived as riskier than they actually are, limiting their access to affordable capital.

The disconnect between financial norms and circular business models is broad and impacts a number of potential opportunities—it explains why many high-impact circular economy applications remain undervalued or overlooked.

For example, in the construction sector—characterised by high-value, long-life assets—current accounting norms fail to account for the extended lifespan and salvage value of circular buildings.[72] Materials recovered from demolition, such as steel, concrete, and even rare earth elements retain considerable value, but linear depreciation models treat them as waste with no residual worth. This, among other factors, likely discourages circular construction innovation during the design and construction phases and limits investment in urban mining and material recovery initiatives, despite their potential to reduce costs and enhance supply chain resilience.

Resource risk: the financial sector's blindspot

The financial sector plays a critical role in assessing and pricing risk. In recent years, the sector has made notable strides in integrating climate risk into decision-making. This progress has been driven by the recognition of two major forms of risk: physical risks, which stem from climate-induced disruptions to supply chains and business operations, and transition risks, which arise from regulatory changes, shifting market preferences, and economic adjustments required to move towards a low-carbon economy.[73] Despite this progress, risks related to unsustainable resource consumption, scarcity, security and supply chain dependencies remain largely overlooked.

In reality, resource risks are significant and growing. Geopolitical tensions can restrict access to essential materials, trade barriers can sever supply chains, and reliance on finite materials can lead to extreme price volatility. What's more, disruptions can arise from land-use changes that destabilise sourcing or from the collapse of local ecosystem services that underpin resource extraction.[74] That these risks remain largely unaccounted for in mainstream financial assessments leaves markets and institutions exposed to foreseeable shocks. Furthermore, by under-pricing these risks, resource-intensive business models become more attractive to investors despite their growing vulnerabilities.

For companies engaged in resource-intensive activities, the associated physical risks can lead to stranded assets, declining revenues, and supply chain disruptions.[75] [76] At the same time, as regulations improve transparency around resource use and consumer preferences evolve, transition risks tied to resource dependency become increasingly significant. Recognising and addressing resource risk is not just an opportunity, but a necessity. For financial institutions, integrating resource risk safeguards against future losses resulting from supply chain volatility while ensuring more stable, risk-adjusted returns.

How is resource risk currently being addressed by the financial sector?

While climate risk and resource risk overlap, they are not the same (Figure 18). The framework established by the Task Force on Climate-related Financial Disclosures[77] (now managed by the IFRS Foundation) requires the financial sector to report on market risks, including the increased cost of raw materials. However, this market risk is assessed solely from a climate perspective—meaning it is only considered when a climate event impacts resource access. Resource risk, however, encompasses a far broader range of vulnerabilities tied to resource use. Beyond climate-related disruptions, it includes risks from supply chain fragility, overreliance on scarce virgin materials, and the unsustainable extraction or processing of key resources.

Recognising the circular economy as a de-risking strategy is critical for the financial sector. By failing to incorporate the full spectrum of supply chain disruptions, resource scarcity, and material dependencies into financial risk assessments, the sector drastically undermines the prominence of resource risk. At the same time, it overlooks the significant role that circular economy principles can play in mitigating these risks and securing long-term financial stability.

This oversight has systemic implications. If financial institutions continue to neglect resource risk in their models, they will perpetuate investment flows into vulnerable industries while failing to allocate capital to businesses that proactively address these risks. By supporting and enforcing the inclusion of resource risk in financial scenario modelling and stress tests, they can help future-proof the sector against escalating resource constraints.

	Resource risk	Overlapping topics	Climate risk
Direct	**Reliance on finite and/or scarce resources endangers business operations**	**Resources are scarce because of extreme weather events**	**Extreme weather events endanger business operations**
Indirect			
Policy & legal	Need to track circularity for CSRD, to prevent compliance costs	Need to monitor Scope 3 emissions for CSRD to prevent compliance costs	ETS reform requires rapid decrease in emissions to prevent ETS costs
Technology	Competitors invest in recycling technology, which improves their market resilience	Inability to apply low carbon and circular technology, e.g. because of product safety	Technology trends move to energy efficiency, less need for fossil industry
Market	Increase in mineral price affects mobile phone production	Increase in crude oil price affects virgin plastics production	Increase in fossil energy prices affects emission-intensive processes
Reputation	Consumers feel negatively towards raw material mining circumstances	Consumers prefer natural (less emission- and material-intensive) products	The oil sector is stigmatized because of human rights violations

Figure 18 illustrates the similarities and differences between climate risk and resource risk.

Resource risk beyond the climate lens

Accounting for resource risk primarily through a climate lens channels investment flows towards certain circular activities, typically those where there is a clearer link to climate impact. The example of the Agrifood sector illustrates how investment is supported when resource risks are directly linked to climate impacts. In Agrifood, downstream risks associated with waste production are factored into financial risk models due to the methane-related climate impact of organic and agricultural waste.[78] As a result, high waste production is priced into business valuations, making circularity a more economically relevant business strategy. Similarly, with upstream resource risks in Agrifood, our findings show that investment in alternative proteins and the development of bio-based inputs—both of which replace fossil fuel-derived materials—is bolstered by their well-established link to climate impact.[79] [80]

The inclusion of resource risk solely through a climate lens in financial models may explain why circular economy investment flows align more closely with climate impact than they do with resource use at the sector level.[81] This is despite the fact that the circular economy as a concept fundamentally addresses resource efficiency. Until resource risk is addressed independently in risk assessment methodologies, circular economy finance will likely continue to align more with climate concerns than with resource-related ones. This not only exposes the financial sector to significant levels of unaccounted risk but also creates a blind spot for identifying risk-adjusted investment opportunities that leverage resource-efficiency strategies to generate superior returns.

The role of policy in supporting the circular economy business case

Commercial investment flows are fundamentally driven by the opportunity to generate returns, which means circular economy investment growth is an indication that economic opportunities exist across many sectors. However, as this chapter has discussed, financial and accounting norms, alongside common approaches to risk assessment, often fail to capture the full breadth of this economic opportunity. Many high-impact resource efficiency solutions remain undervalued, leaving the circular business case underappreciated and underfunded even when it is commercially viable. That said, the financial sector shouldn't shoulder all the blame for the misalignment between circular economy investment flows and resource efficiency potential. In many cases, the circular business case struggles to reach commercial viability due to markets that are unfit for purpose and a policy mix that, in many cases, actively disincentives circularity.[82] Despite some success of circular business models in specific contexts, they remain peripheral in most markets—effective models have been confined to niche settings and have yet to scale significantly across sectors.[83]

Markets for circular economy activities are shaped by external factors, with policy being one of the most significant. Yet, in many regions, policies continue to incentivise resource extraction and waste generation while failing to account for the broader societal and environmental costs of these activities.[84] By reshaping markets to internalise the social cost of resource use, policymakers can guide capital flows towards circular economy solutions, enhancing the competitiveness of resource-efficient businesses while strengthening economic resilience and resource security in strategic sectors. As seen in Chapter two, the EU's Circular Economy Action Plan provides a clear example of how policy can drive investment. The extensive policy package led to a significant increase in commercial circular economy investment in the region relative to others.

In most geographies, the costs of resource depletion—such as environmental degradation, pollution, biodiversity loss, and supply chain vulnerabilities—are not fully reflected in market prices. These hidden costs, or 'externalities', allow take-make-waste models to remain artificially cheap, making circular alternatives appear less competitive. For example, virgin material extraction is typically taxed at lower rates than labour-intensive activities like repair and refurbishment, discouraging businesses from adopting circular practices. Similarly, landfill fees in some regions remain low, reducing economic incentives to divert materials into reuse and recycling streams.[85]

A clear example of how externalities suppress the circular business case can be seen in **Construction**—the most resource-intensive sector—where only 8% of circular economy capital flows. The EU generates around 400 million tonnes of construction and demolition waste annually,[86] yet reuse and recycling remain marginal in many regions. Several policy barriers contribute to this, including outdated

building codes that often fail to accommodate reused materials, treating them as lower-quality than virgin inputs, while VAT on second-hand construction materials further discourages reuse. At the same time, policies that could incentivise circular practices—such as minimum recycled content requirements for new buildings—are largely absent, making investment in secondary material markets unappealing. These regulatory gaps and financial disincentives result in a paradox: despite the clear economic and environmental benefits of reducing material demand and waste, the market for circular construction remains underdeveloped.

However, there are cases where externalities have been successfully internalised through policy, creating viable markets for circular business models. The **Agrifood** sector provides a strong example. In response to concerns over food waste and climate impact, many EU countries have implemented policies requiring organic waste separation, restricting landfilling, and incentivising recovery solutions like composting and biogas production.[87] These regulations effectively price in the societal costs of food waste, making circular business models financially viable. Additionally, established quality standards for recycled organic materials—such as compost and digestate—have helped stabilise markets by reducing uncertainty around secondary material use cases. As a result, what was once considered a waste stream has become an investment opportunity, with businesses emerging to manage, process, and repurpose organic waste at scale.

Policymakers now have a major opportunity to apply similar principles to other sectors where resource concerns are particularly acute, such as critical minerals. Many materials essential for clean energy technologies—such as rare earth elements, lithium, and cobalt—face significant supply risks due to geopolitical dependencies and environmental damage from extraction.[88] Despite this, current policies fail to reflect the true costs of raw material dependence, allowing market forces to continue favouring extraction over recovery and recycling. The EU's *Critical Raw Materials Act* aims to correct this by setting a goal for at least 15% of the EU's annual demand for strategic materials to be met through recycling by 2030.[89] However, additional measures—such as mandatory recycled content in key products, more ambitious EPR schemes, and fiscal incentives for material recovery—are needed to fully internalise supply risks and unlock investment in circular solutions.

By addressing market failures, policymakers can create a more level playing field for circular economy businesses and guide capital towards more effective resource-efficiency approaches that genuinely enhance economic resilience. Circularity should not be viewed as a niche concern but as a strategic tool for reducing dependency on volatile global markets, strengthening supply chains, and positioning domestic industries at the forefront of sustainable innovation. Through well-designed policies—such as waste/landfill taxation, targeted subsidies, and regulatory frameworks that support secondary material markets—governments can internalise externalities in ways that not only support environmental goals but also drive investment into high-value circular business models, ensuring their long-term economic competitiveness.

5 The way forward

The circular economy presents a significant opportunity for the financial sector as it navigates the shifting economics of resource use. By promoting greater resource efficiency, it offers a pathway to superior returns while also shielding portfolios from the growing threat of material supply disruptions, price volatility, and future regulatory measures. Since 2018, investment in businesses engaging with the circular economy has increased, signalling a strengthening business case. However, investment volumes remain unpredictable and declined in the two years following their 2021 peak. More critically, commercial investment is not flowing towards the sectors and business models that have the greatest potential to benefit from resource efficiency gains. Instead, current investment flows tend to concentrate on conventional circular business models—such as repair and resale—within specific industries, while higher-value opportunities receive a far lower proportion of investment.

For capital flows to fully capture the opportunity provided by the circular business case, three key factors need to be addressed: financial norms that fail to recognise the full value of circular business models, the financial sector's underappreciation of resource risk as a standalone issue, and a lack of a supportive policy to create viable business cases for high-value circular solutions in critical areas. Until this happens, capital will not yet move at the scale or in the direction needed to drive a systemic shift away from linear production and consumption. Only by addressing these barriers will the financial sector, its regulators, and a range of policymakers unlock the full potential of the circular economy as a tool to mitigate resource risks and enhance economic resilience.



Bridging the finance gap: Recommendations

The following section provides targeted recommendations for each of the three key audience groups—the financial sector, its regulators, and policymakers. It outlines how financial institutions can better identify and assess high-value circular investments while integrating resource risk into decision-making. It also explains how regulators can support and enforce more accurate risk assessment standards to protect the financial sector and our economies. Finally, it details how policymakers can more actively cultivate the market conditions needed to strengthen the circular business case and drive investment at scale.

Maximise circular economy opportunities in financial markets

Who?

Financial market participants, such as lenders and investors.

How?

1. **Better understand and value the circular economy business case.**

   The opportunity of the circular economy business case is being missed due to financial assessment methodologies that fail to capture circular value. Financial market participants can better leverage the circular economy opportunity by updating accounting standards and adopting novel valuation approaches. Where traditional accounting frameworks, such as linear depreciation and asset-based financial assessments, undervalue circular businesses by failing to capture long-term resource efficiency and resilience, novel approaches consider these factors to appreciate the business case more accurately.[90]

   Where circular business models require collaboration between suppliers, manufacturers, and end-users, value chain financing mechanisms—such as pay-for-performance contracts, revenue-sharing models, and supplier-buyer co-financing agreements—can help align incentives and distribute financial risk more equitably.[91] Engaging investors alongside industry leaders and/or public institutions to co-fund technical innovation can help solve early-stage investment challenges, share risk, and support scalability concerns through guaranteed demand from supply chain partners as co-funders.

   Lenders seeking to transition resource-intensive holdings in their portfolios should leverage financial instruments with well-structured incentive mechanisms to encourage measurable progress towards circularity.

2. **Account for resource risk as a standalone factor and begin to track portfolio exposure.**

   The connection between resource risk—such as material scarcity, supply chain vulnerabilities, and dependency on virgin inputs—and financial stability remains underappreciated. To address this gap, financial institutions should update their risk assessment frameworks and reporting practices to fully capture exposure to resource-related risks, independently from climate risk.

   From a reporting perspective, financial institutions should begin tracking and disclosing portfolio exposure to resource-intensive and resource-dependent business models using materiality thresholds, dependency ratios, or circularity indicators. This will help build a common language and comparable data across the sector. Initiatives such as *Kopgroep Circulair Financieren* and its *Circular Risk Scorecard* provide early models for translating resource risk into decision-relevant metrics.[92]

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

   Ultimately, clarifying how resource risk interacts with, but is distinct from, climate risk is essential for comprehensive risk management and for scaling finance towards circular solutions.

3. **Understand and utilise the link between circular economy strategies, decarbonisation, and biodiversity conservation.**

   While resource risk deserves standalone attention, the circular economy is also a critical enabler of climate and biodiversity goals. Yet, financial market participants currently struggle to translate this into actionable strategies. The UNEP finance initiative framework[93] supports this by highlighting how banks and investors can integrate circularity into sustainability-linked finance and transition plans. Aligning banking and lending practices with circular economy principles will help scale financial products that support regenerative and circular business models—thereby strengthening climate commitments.

4. **Improve data gathering, monitoring, and reporting on circular economy investments.**

   Robust data collection and monitoring of circular economy investments are important for strategic decision-making. By more systematically tracking the impact of circular investments, financial institutions can better assess risk exposure, identify high-performing business models, and refine investment strategies to align with resource efficiency opportunities. Improved reporting enables more accurate valuation of circular assets, distinguishes genuine circular innovations from marginal improvements, and boosts investor confidence in the long-term viability of circular initiatives. Establishing clear circularity metrics within portfolios also helps lenders to anticipate regulatory shifts, market trends, and supply chain disruptions, ensuring they remain competitive in an economy increasingly shaped by resource constraints.

Strengthen financial regulation to align investment with resource concerns

Who?

Financial sector regulators

How?

1. **Support the alignment of language, definitions, and the standardisation of circular economy investment.**

   Financial regulators worldwide should build on existing frameworks—such as the EU Taxonomy, IFC *Harmonized Circular Economy Finance Guidelines*, the EU Categorisation System for the Circular Economy, and the ISO 59000 series—to establish clear, harmonised and consistent definitions for the circular economy. This will help financial market participants qualify, categorise, and report on circular economy investments.

2. **Support the integration of resource risk into portfolio management.**

   Regulatory guidance should clarify how transitional resource risk differs from climate risk and ensure it is incorporated into risk assessment methodologies. Financial regulators can then more effectively support the integration of resource risk as a standalone issue by requiring disclosures on natural resource dependencies, incorporating stress testing for supply chain and biodiversity risks, and refining prudential regulations to account for depletion and scarcity risks. They can also implement or promote taxonomy frameworks to classify resource-intensive activities, adjust capital requirements based on exposure to resource constraints, and strengthen macroprudential oversight to track systemic risks related to raw material availability. Collaboration with scientific bodies and international regulators can further improve data quality and risk modelling for financial institutions.

3. **Mandate circularity reporting across portfolios that goes beyond climate impact, with a specific focus on resource risk exposure and mitigation.**

   Standardising circular investment classification and resource risk assessments would enable the financial sector to scale circular economy investment. Building on developments provided by the EU's Sustainable Finance Disclosure Regulation as well as the EU Taxonomy, the CSRD, and the upcoming Global Circularity Protocol, regulators can expand disclosure requirements around the circular economy as a topic, mandating more comprehensive reporting on resource risk exposure and mitigation plans.

Leverage policy and regulation to support the circular business case

Who?

Public policymakers

How?

1. **Internalise social and environmental costs to create economic opportunities.**

   The public sector plays a critical role in shaping markets to achieve optimal outcomes. In cases where the economic incentive for circular business models is lacking, the public sector should ensure that external costs and benefits to society are reflected in prices through regulation and fiscal policy. By mandating environmental standards, such as limits on virgin material use and waste disposal, governments can compel businesses to account for the broader costs of their resource decisions, making circular solutions more competitive. Shifting fiscal policy to tax resource use, waste, and pollution instead of labour would directly increase the cost of linear production and provide a stronger incentive for circular practices.

2. **Address potential barriers for the circular business case.**

   When market dynamics hinder the viability of circular business models, the public sector must remove barriers. This includes addressing outdated building codes, providing clear guidance on secondary material use and trade, and streamlining regulatory approval for innovative materials. Governments should also facilitate industry-wide material recovery networks, improving market coordination by ensuring consistent feedstocks for recyclers and remanufacturers.

3. **Use public procurement to generate markets and ensure stable demand for circular solutions.**

   Public procurement is a powerful tool for shaping markets. By embedding circular criteria into tenders—particularly in sectors like construction, infrastructure, and transport—governments can provide consistent demand signals and de-risk investment in circular business models. Clear standards and long-term commitments can help establish a stable customer base for circular solutions and drive systemic change across value chains.

4. **Scale public investment in the circular economy.**

   Finally, the public sector can increase its direct spending on the circular economy. While beyond the scope of this report, this can primarily be achieved through the public provision of essential infrastructure and coordination networks for the circular economy. For commercial investments, the duration of public accelerator programmes should be extended to address the 'scale-up valley of death' in the circular economy. Risk-sharing mechanisms, such as blended finance and first-loss guarantees, can be strategically used to overcome investment challenges in specific instances where the economic conditions are in place to support the business case, but where market hesitation persists.

Improve global resource governance

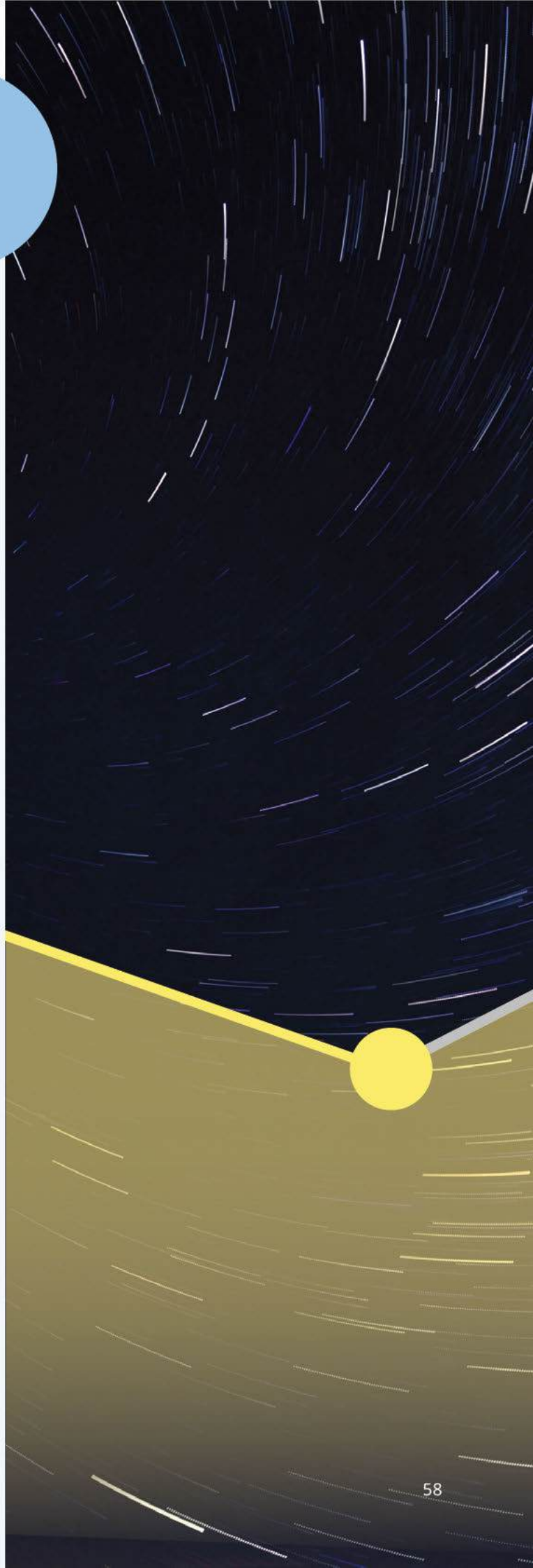
Who?

Civil society, NGOs, and the public sector

How?

Despite progress in circular economy policymaking at national and regional levels, a significant governance gap remains on the international stage. Just as climate governance has benefited from institutions like the Intergovernmental Panel on Climate Change on climate change, circular finance and material resource governance require a global framework. The upcoming Global Circularity Protocol[94] (expected in 2026) will provide a much-needed global standard to support this effort and to guide businesses and policy makers. A dedicated intergovernmental body an International Materials Agency for material governance should:

1. **Establish global standards, definitions, and data collection**: Proliferate the use of clear, science-based criteria for material use and standards for circular investments to reduce uncertainty and allow global capital flows to be aligned with resource-efficiency gains.
2. **Set national and transnational targets for decreasing material use and increasing material productivity**: International benchmarks for reducing material intensity, similar to the climate targets under the Paris Agreement, would provide a reference for both financial institutions and policymakers.
3. **Enhance policy coordination across jurisdictions**: Aligning trade and fiscal policies alongside industrial strategies on the circular economy would create a more coherent international investment landscape for circular businesses and economic incentives.



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1. Introduction

The *Circularity Gap Report Finance* (*CGR Finance*) tracks capital flows in the circular economy under a specific scope best described as *known investment in businesses engaging with the circular economy*. In doing so, the *CGR Finance* tracks the baseline level of commercial circular economy investment, or capital raised by businesses for circular economy purposes. The research builds on data from a range of public, private and proprietary sources to create a methodological foundation for circular economy investment tracking.

The primary intention of the report is to quantify and categorise capital flows in the circular economy. It follows flows along their lifecycles, from the original allocator of the capital, the instrument through which it was deployed, the category of circular economy business model supported, to the sector in which the business most prominently operates. As such, the *CGR Finance* details not just where circular economy finance comes from (investment type/source), but also which circular activities it supports.

This document details the methodology developed to produce this baseline, including scoping decisions, data sources, screening criteria, and steps for further research to build on this foundational work.

2. Scope

2.1 Key scoping decisions

1. **Time period:** 2018–2023 inclusive.
2. **Geographic scope:** Worldwide, noting that different data sources present differing levels of geographic coverage.
3. **Sectors:** All/economy wide. Note that different data sources present different levels of coverage.
4. **Investments:** External capital raised by businesses through loans, equity and grants. Of these instruments, all examples of real economy investment were considered in scope—that is, financial investment directly supporting the production or provision of goods and services rather than an exchange of ownership between third-parties, or other forms of financial economy transaction. Corporate bonds, corporate own-investment, and project-level investment were excluded due to methodological challenges, while some specific financial transactions were excluded as not representing investment in the real economy, such as secondary buyouts. For a summary of deal types evaluated for their inclusion based on the real economy scoping and more information see Section 3.1.
5. **Circular economy definition:** Whether a business activity is considered to contribute to the circular economy was determined based on the impact on the type or quantity of material used. Circular business models were classified based on their contribution to one of three business model categories: Circular Design and Production, Circular Use, or Materials Recovery. Finance for transition is included based on the proportion of Use of Proceeds (UoP) criteria or key performance indicators (KPIs) that relate to the circular economy. Exceptional activities are listed and justified explicitly. See Section 3.2 for more detail.
6. **Deal values:** Only deals with non-zero deal values were considered under this study. Deal values have been apportioned, where relevant, in terms of their characteristics and application to the circular economy. See Section 3.3 for more information.
7. For a list of **exclusions** and known **data gaps**, see Section 3.

2.2 Overview of the data gathering approach

The study compiled deal data from 1) Pitchbook Data Inc, 2) Environmental Finance, and 3) Desktop research.

1. Pitchbook Data Inc was used to identify companies whose primary activity is fully circular (in line with the qualification criteria in Section 3.2). For any company whose primary activity meets our definition of contributing to the circular economy, all capital raised through debt, equity and grant finance over the period 2018–2023 was included.
2. Environmental Finance data platform was used to extract all green loans and sustainability-linked loans with specific Use of Proceeds and key performance indicators related to the circular economy. Desktop research was conducted to validate and refine these results where required. The share of the loan amount tracked in this research was based on the share of circular economy-related Use of Proceeds (UoP) or KPIs relative to all UoP or KPIs in the deal. For example, if a US$10 million sustainability-linked loan has ten stated KPIs and five of these relate to the circular economy, the proportion of the loan amount included is 50%, or US$5 million in this case.[1]
3. Additional desktop research was carried out on 13 major Grant provisioners (below) to extract a list of approximately 5,000 projects over the 2018–2023 period. These projects were then categorised in terms of circular economy activity and included in the study as appropriate.
    - Horizon 2018–2023
    - The Global Environment Facility (GEF), Least Developed Countries Fund
    - International Climate Initiative (IKI)
    - UK Research and Innovation (UKRI)
    - OAK Foundation
    - Laudes Foundation
    - Coca Cola Foundation
    - African Development Bank Group
    - Inter-American Development Bank
    - Bill & Melinda Gates Foundation
    - Rockefeller Foundation
    - European Innovation Council and Small and Medium-sized Enterprises Executive Agency (EISMEA)
    - Ford Foundation

For each deal, characterisations were made in in terms of the following distinctions, where possible:

- Source of finance, in terms of the allocator of the capital;
- Source of finance, in terms of whether this entity is public or private;
- Financial instrument, in terms of debt, equity, or grant;
- Deal type, as a subcategory of the determined instrument;
- Circular economy business model category;
- Sector of operation;
- Geography, in terms of country where available, otherwise region, determined by the location of the headquarters;
- Year financing was disbursed.

[1] This proportion will be referred to as the 'circular percentage' in sections relating to transition instruments hereafter.

To operationalise this, the collected data points were screened according to the criteria described in the following chapter. Deals or parts of deals were then excluded from each source based on this screening. Where required, additional desktop research was conducted per financier and/or company to determine its categorisation and qualification for the study. The final baseline summarises this consolidated dataset.

3. Methodological approach

3.1 Financial sources and instruments

3.1.1 Sources of finance

Each deal was characterised in terms of the allocator of the capital, which ranged in number from one to many. Each funder, across all data sources, was categorised into a profile based on a prescribed source category alongside a determination of whether it is a public or private allocator (see Table one). The study clustered over 8,000 financial market participants (FMPs) from all sources into one of the profiles below. FMPs can provide debt and/or equity and/or grants across deals.

Table one lists financial market participant profiles with public/private determination.

FMP Profile	Public/Private
Accelerator/Incubator	Private
Accelerator/Incubator	Public
Angel investors	Private
Asset managers and other institutional investors	Private
Commercial banks and other credit providers	Private
DFI	Public
Government	Public
Investment banks	Private
Private equity	Private
Venture Capital	Private

The following were excluded:

- Corporate own investment, due the scope of externally raised capital only;
- Investment from households, as investment on public markets is not considered as real economy investment;
- Government funding, unless the investment was direct government support to specific businesses. Subsidies, as they are a policy instrument typically made available to any business that meets some specified criteria;
- Regional development funds, as they operate at a lower jurisdiction than the national level and we were unable to investigate the regional funds of every country for this iteration of the study.

3.1.2 Financial instruments

All sources of finance that provide direct investment into the real economy—i.e. that support the production and provision of goods and services—were considered in scope. Any deal considered to be a financial economy investment was excluded. This includes those that pertain to transfers of money or assets between intermediaries or third-parties, but where the business itself does not receive investment.

Corporate bonds were a notable exception. The funds raised are real economy investments and so are in scope but were excluded in this iteration of the report due to methodological challenges. These challenges were two-fold:

i) Full inclusion of capital raised through bonds issued by 'pure play' circular business models were excluded because the data platforms leveraged do not provide a sufficient description of the issuing company to effectively run our categorisation approach.

ii) In the example of green bonds with some resource related Use of Proceeds (UoPs) criteria, the actual use of proceeds was indeterminable. Given the size of the overall green bond market, using the 'circular economy percentage' as we did with green loans would have been so large to dwarf the rest of our findings. This was deemed unappealing as it was only an estimate.

Table two summarises which deal types are considered real economy investment and why, including their inclusion status in regard to this research.

Table two provides a summary of deal type inclusion in the real economy.

Deal Type	Real Economy	Justification	Inclusion
Accelerator/Incubator	Yes	Provides funding and support to early-stage startups, injecting capital into new businesses and fostering innovation.	Include
Angel (individual)	Yes	Individual investors provide capital to startups and early-stage companies, directly injecting money into businesses.	Include
Bankruptcy: Admin/Reorg	No	Primarily a financial restructuring process that may not involve new capital injections but focuses on reorganising existing debts and operations.	Exclude
Bankruptcy: Liquidation	No	Involves selling off assets to repay creditors, not a capital injection into businesses; it typically signifies the end of a business operation.	Exclude
Buyout/LBO	Yes	Involves acquisition of a company with equity or debt financing, with cash transferred to the existing owners of the business, who	Include

		themselves may stay or leave depending on the arrangement of a given deal.	
Capital Spending	Yes	Directly involves investing in physical assets or infrastructure, which injects money into businesses and drives economic activity. Excluded however due to the scoping decision to exclude corporate own investment.	Exclude
Capitalisation	No	Generally refers to the structure of a company's capital; it may not involve direct investment into business operations.	Exclude
Corporate	Yes	Corporate financing often involves injecting capital for operational growth or strategic investments in business activities. Excluded however due to the scoping decision to exclude corporate own investment.	Exclude
Corporate Asset Purchase	Yes	Directly involves purchasing assets to enhance business operations, representing a capital injection into the acquiring company. Excluded however due to the scoping decision to exclude corporate own investment.	Exclude
Debt—Acquisition	Yes	Involves financing to acquire another business, typically resulting in capital injections into the acquired entity.	Include
Debt—General	Yes	General debt financing can provide working capital or funding for growth, contributing to economic activity.	Include
Debt—Merger	Yes	Financing a merger often involves capital that supports the combined company's operations and growth potential.	Include
Debt—PPP	Yes	Public-Private Partnerships (PPP) typically involve investments in infrastructure and public services. Excluded as investment is not typically made directly into businesses, rather infrastructure of service delivery.	Exclude
Debt Conversion	No	Generally refers to converting debt into equity; it doesn't typically involve new capital injection into businesses.	Exclude
Debt Refinancing	No	Involves restructuring existing debt without new capital injection into the business.	Exclude
Debt Repayment	No	Involves repaying existing debt; it does not represent a new capital investment into the business.	Exclude
Dividend Recapitalisation	No	Primarily a financial manoeuvre to pay dividends through debt; it does not typically inject new capital into operations.	Exclude
Early Stage Venture Capital	Yes	Venture capital at this stage involves injecting funds into startups, fostering growth and innovation.	Include
Equity Crowdfunding	Yes	Raises funds from the public to invest in businesses, directly injecting capital into operations and projects.	Include
Exit Financing	Yes	Involves funding for exiting an investment, often including reinvestments into the business to enhance value.	Include
General Corporate Purpose	Yes	Funds raised for general corporate purposes typically involve reinvesting into business operations, indicating a capital injection.	Include
Grant	Yes	Grants provide non-repayable funds to organisations or projects, representing a direct capital injection into the economy.	Include
Joint Venture	Yes	Involves collaboration and capital investment from multiple entities, contributing resources to business development.	Include

Later-Stage Venture Capital	Yes	Later-stage venture capital typically injects capital into more established companies for expansion and growth initiatives.	Include
Leveraged Recapitalisation	No	Generally involves restructuring a company's debt without new capital injections; focuses on financial restructuring.	Exclude
Merger/Acquisition	Yes	Acquisitions typically involve capital infusion into the target company, enhancing its operations and growth. Excluded as corporate investment is out of scope.	Exclude
Mezzanine Financing	Yes	Mezzanine financing is often used for expansion and growth, injecting capital into businesses, although it carries higher risk.	Include
Private Equity Growth/Expansion	Yes	Private equity investments aimed at growth typically involve injecting significant capital into companies for expansion initiatives.	Include
Project Financing	Yes	Involves funding specific projects, especially in infrastructure, directly injecting capital into the economy. Excluded as project-level investment is out of scope.	Exclude
Secondary Transaction—Open Market	No	Primarily involves the trading of existing shares without new capital being injected into the company.	Exclude
Secondary Transaction—Private	No	Similar to open market transactions, this involves exchanges between investors without new capital going into the business itself.	Exclude
Seed Round	Yes	Early-stage funding typically involves injecting capital into startups to support their growth and development.	Include
Share Repurchase	No	Involves a company buying back its own shares; while it can impact the share price, it does not represent a new capital injection into operations.	Exclude
Working Capital	Yes	Financing for working capital directly supports day-to-day operations, injecting funds necessary for running a business.	Include
Convertible Debt	Yes	A hybrid financial instrument that starts as a loan and can convert into equity, supporting companies with capital for growth.	Include
IPO	Yes	The process where a private company offers its shares to the public, raising capital for expansion and increasing market liquidity.	Exclude (Exclusion based on capital raising through public markets)

3.1.3 Investment stage by deal type

Investment is given to companies that are at different stages of maturity. We summarised each investment by the maturity stage of the recipient businesses, based on information regarding the deal. Table three outlines how each deal type was allocated to investment stages.

Table three summarises of deal types by stage.

Deal Type	Stage
Equity Crowdfunding	Pre-seed
Grant	Pre-seed
Angel (individual)	Pre-seed
Accelerator/Incubator	Pre-seed
Product Crowdfunding	Pre-seed
Seed Round	Seed
Early-Stage Venture Capital	Early stage
Later-Stage Venture Capital	Later stage
Private Equity Growth/Expansion	Growth/Expansion
Project Financing	Growth/Expansion
Convertible Debt	Growth/Expansion
Working Capital	Growth/Expansion
General Corporate Purpose	Growth/Expansion
Green Loans	Growth/Expansion
Sustainability-Linked Loans	Growth/Expansion
Debt—General	Growth/Expansion
Buyout/Leverage Buyout	Acquisition

3.2 Categorising circular economy investment

3.2.1 Circular activities

Given the breadth and complexity of the circular economy as a concept, as well as its frequent use as part of a broader or multi-faceted approach to address other aims, it can be difficult to determine what proportion of a company or project (and related financing) should be considered as circular.

This study includes deals where either the company's core business activities or the loan's UoPs or KPIs contribute to at least one circular economy strategy.

'Circular strategies' refer to the various activities that can be considered as contributory to the circular economy and were defined with reference to leading regulatory frameworks available at the time of research, namely:

- the IFC Harmonized Circular Economy Finance Guidelines (IFC Guidelines);
- the ISO 59000 series;
- The EU Categorisation System for the Circular Economy;
- the EU Taxonomy; and
- the Corporate Sustainability Reporting Directive (CSRD).

The final selection of circular strategies and related activities uses the IFC Guidelines as a key point of reference, with some additions from the EU Categorisation System. Table four lists the circular activities considered as part of the study.

Table four summarises the hierarchy of circular economy activities.

Circular Activity Tier one	Circular Activity Tier two	Circular Activity Tier three
Design and Production	Design phase of products/assets/services that incorporates circular economy strategies or principles	Design of products that can be easily repaired, disassembled, or remanufactured (e.g., modular design, favouring upgradability)
		Design focused on durability, increasing the utilisation and extending the life of a product
		Design to reduce resource requirements and improve effectiveness and efficiency of raw materials used
		Use of standardised key components (for example, equipment for ships enabling remanufacturing and refurbishment)
		Design of packaging that is reused or recycled in practice and at scale
		Design to incorporate the use of raw materials produced via regenerative practices (for example, biobased materials and upcycling of materials)
		Design of food and other products for consumption (for example, cosmetics, pharmaceuticals) using ingredients that are upcycled and produced using regenerative practices
		Design for recyclability (i.e., low toxicity, ease of separating materials)
		Design of business models that facilitate resource and asset sharing
		Design of systems (such as agricultural practices) to regenerate nature and reverse biodiversity loss
		Design for traceability of materials in products (for ease of remanufacturing, preparing for reuse, or recycling)
	Production processes that reduce the absolute volume of virgin raw material usage and increase production effectiveness	Use of secondary materials and byproducts derived from materials and resource recovery
		Use of materials that promote nature regeneration (for example, compostable materials) and/or sustainably sourced biobased materials
		Production that increases the durability, repairability, reusability, and recyclability of a product
		Additive manufacturing/3D printing techniques to minimise material use and resource consumption and increase the repairability of products
		Implementation of regenerative agricultural production practices, such as agroforestry, cover cropping, and rotational grazing, that prioritise soil health, preserve/increase biodiversity, and limit use of synthetic inputs (such as herbicides, pesticides, and chemical fertilisers)
		Implementation of regenerative aquaculture practices

	Products, services, business models, and tools that enable circular design and production	Digital tools and applications, including Internet of Things solutions, to facilitate resource efficiency, and avoid waste production
Use	Products, services, business models, and tools that extend product lifetimes	Virtual marketplaces for secondary raw materials or second-hand/repaired/upgraded products
		Digital tools and applications, including Internet of Things solutions, to facilitate tracking, traceability, and take-back of products throughout lifecycle for reuse, repair, or rental/sharing recycling, improve resource efficiency, and avoid waste production
		Predictive maintenance and repair tools to extend the life of products
		Data repositories for material passports to facilitate effective reuse and recovery of materials (for example, description of products, components, and raw materials for construction of building)
		Development of industrial automation and/or robotics solutions to promote circularity (for example, selection and sorting of materials for reuse, maintenance of solar/wind power plants)
		Leasing services, such as vehicle or equipment leasing
		Subscription models that include maintenance and repair services
		Pay-for-use models (for example, use of lighting equipment in office buildings)
		Sharing platforms that connect consumers with underutilised assets (for example, ridesharing, coworking spaces)
	Lifetime extension of products and assets beyond design phase	Repair, refurbishment, retrofitting, and remanufacturing of products
		Construction of manufacturing facilities for refurbishing or remanufacturing purposes
		Production of equipment or technology for refurbishing or remanufacturing purposes
Recovery	Collection and sorting of end-of-life products and materials	Deposit return systems (for example, for recycling beverage containers)
		Collection and sorting services to increase recycling
		Facilities for sorting and treatment, prepping for re-use and recycling
		Collection and transport of non-hazardous and hazardous waste
		Depollution and dismantling of end-of-life products
	Material & resource management, upcycling, recycling, and recovery	Facilities that prepare products for reuse and recycling
		Facilities that enable value recovery and re-use from waste, including materials, bio-wastes, or wastewater
		Biomass composting initiatives to recycle nutrients

		Development of waste management infrastructure for waste prevention, as well as preparing for reuse and recycling
		Phosphorus recovery from wastewater
		Production of alternative water resources for purposes other than human consumption
		Treatment of hazardous waste
		Recovery of bio-waste by anaerobic digestion or composting
		Sorting and material recovery of non-hazardous waste
	Products, services, business models, and tools that enable material recovery	Digital tools and applications to facilitate collection, sorting, recovery and end-of-life handling

It is important to note here, as repeated in Section 3.3.4, that some software and data companies offer 'enabling' products and services that relate to one or more of the circular activities. In this approach, they are included as part of that activity and under that circular strategy, rather than being grouped as a separate own category. For instance:

- A software company carrying out digital/3D product design (specifically for material/resource efficiency) would be considered under 'Design and Production'
- A data company supporting out automated sorting would be considered under 'Recovery'

This differs from the IFC Harmonized Circular Economy Finance Guidelines, which have an additional tag for '+Circularity Enablers' for products, services, business models, platforms, and tools that enable circularity across different segments of the materials life cycle, including increased intensity of use. Furthermore, the IFC Guidelines distinguish between activities that can be considered as 'business-as-usual' and those that go beyond it. Due to the methodological challenge in determining this, this distinction has not been made in the *CGR Finance*.

3.2.2 Handling edge cases

A key part of the scoping process was determining what constitutes a contribution to the circular economy. This study takes a resource-focused view of the circular economy, and determination of contribution therefore was centred on how a given activity impacts the amount or type of resources used. As a general rule of thumb, this means that activities where the impact on resource use is positive, but the overall environmental impact is dubious (such as maintenance of an oil refinery), would be included. In contrast, activities where the environmental impact is likely positive, but the overall impact on resource use is dubious (such as electric vehicle manufacturers), would be excluded.

To clarify which activities were considered part of the circular economy, Table five outlines commonly cited examples and explores how each was handled in this study.

Table five summarises exceptional activities and their inclusion status.

Activity	Outcome	Justification

Waste to energy	Exclude	Waste to energy is not included in the EU Categorisation system, EU Taxonomy, or the CSRD. Research shows the material impact to be dubious, as many recoverable materials are destroyed in the process, and it acts as a disincentive to more impactful cycling measures.
Wastewater treatment	Include	Various water treatment activities were determined as contributory to the circular economy in EU legislation. Many DFIs consider these as circular economy activities and in fact make up a sizeable portion of circular economy spending. Furthermore, water and waste infrastructure deals are often awarded to organisations dealing with both of these. It should be noted that the IFC Guidelines do not include Water topics as part of the circular economy's scope.
Renewable energy	Exclude	Renewable energy is an essential facet of the sustainable transition, but its overall impact on material use is not clear and it is far more logically considered as climate finance than circular economy finance, and we see value in maintaining that distinction.
Chemical recycling	Include	Chemical recycling has a relevant impact on the circular economy, though its overall environmental impact is debatable due to the energy use required.
Conservation efforts/ Landscape finance	Exclude	Conservation efforts are not directly related to the circular economy, at least in terms of material use, despite their relevance for a healthy future environment. This topic is more insightful when kept separate and therefore comparable with circular economy finance, rather than included within it.
Batteries	Conditionally include	Batteries should only be included if recyclable or reusable, or made with recycled content—not just rechargeable batteries.
Renovation	Conditionally include	Include renovations, but not wide scale upgrades for energy efficiency for housing.
Biofuels	Conditionally include	Not all biofuels are considered circular. Currently only biofuel companies that use secondary materials as inputs are included—i.e. manufacturers of biofuel from virgin sources were not included because we are not able to confirm that this extraction is respecting the regeneration rates of these natural materials.
Electric vehicles	Conditionally include	General manufacturers are excluded. However, if they employ circular economy principles in the sourcing or manufacturing, or through their business model (rental), then they are included.
Public transport	Exclude	Public transportation is not directly related to the circular economy, although very relevant for an efficient transportation system.

Leasing (financial)	Exclude	Leasing is a model to purchase large assets, such as airplanes, and not a mechanism (necessarily) to ensure extended lifetimes or extended producer responsibility schemes.

3.2.3 Circular economy criteria in transition instruments

Green loans, in general, are categorised as such because their UoPs falls under a hierarchy of activities that are considered green. Not all of these green UoPs are considered associated with the circular economy. Table six shows the two UoP categories that can be considered as fully corresponding to the given circular strategy. Note that no UoP explicitly relates to the circular economy strategy of 'Use'.

Table six summarises circular strategies applied to green loan UoP categories.

Use of Proceeds	Description (Green Loan Principles)	Circular Strategy
Eco-efficient products production technologies and processes	Eco-efficient and/or circular economy adapted products, production technologies and processes (such as development and introduction of environmentally friendlier products, with an eco-label or environmental certification, resource-efficient packaging and distribution).	Design
Pollution prevention and control	Pollution prevention and control (including wastewater treatment, reduction of air emissions, greenhouse gas control, soil remediation, waste prevention, waste reduction, waste recycling and energy/emission-efficient waste to energy, value added products from waste and remanufacturing, and associated environmental monitoring).	Recovery

The following UoPs are not included in the scope of the study, because they are either not explicitly related, or too broadly related and therefore would be overstating investment in the circular economy:

Access to essential services, Affordable basic infrastructure, Affordable housing, Clean transportation, Climate change adaptation, Covid-19 response, Employment generation including through the potential effect of SME financing and microfinance, Energy efficiency, General Corporate Purposes, Green Buildings, Renewable energy, Sustainable management of living natural resources, Sustainable water management, Terrestrial and aquatic biodiversity conservation.

For Sustainability Linked Loans, KPIs are individualised per loan and are not necessarily linked to a structured table of possible KPIs. All loans with KPIs related to 'Circular Economy' were extracted and all KPIs were disaggregated and evaluated manually for their relevance to one of the circular strategies of 'Design and Production', 'Use', or 'Recovery'.

Examples of KPIs include:

- Designing all company products for circularity [Design and Production]

- Reduction of inputs (in tonnes) [Design and Production]
- Using only recycled metals as inputs [Design and Production]
- Number of recovered devices [Recovery]
- Collection and recycling of disused fishing nets [Recovery]

3.3 Deal value, apportioning and allocation

Only deals with non-zero values were included. No matter the issuing currency, all deals were converted to the average US$ exchange rate for the year of that investment. Deals may have multiple lenders, investors, or if they are debt, then their KPIs/UoPs could link to multiple circular activities. In these cases, then the deal value was apportioned into all the different categories equally.

3.3.1 Source and instrument allocations

Deals can have multiple lenders and/or investors, or grantors, and employ multiple types of instruments. Typically deals can have some combination of debt and equity, while typically deals that are grants are *only* grants—i.e. it is unusual that grants are combined with other forms of financing. However, debt and equity are commonly provided by a range of lenders and a range of investors, respectively.

Financiers were categorised into one of the profiles as detailed in Table one, and the total deal volume was allocated across the profiles equally. This is because it is not known how much each financier provided specifically.

If a range of instruments was used, each respective sub-total was allocated to its respective category (debt, equity or grant) within one deal. This proportion is known specifically.

3.3.2 Circularity apportioning

The following describes how much of a deal was included based on its alignment to circular activities:

- If circular activities are the primary activity of the investee company, then it is considered as a ‘pure play’ circular business and 100% of the deal was included.
- For green loans, if circular activities are not the primary activity of the investee company, then that deal value was included in proportion to the percentage of stated UoP categories that are related to circular economy objectives/activities. For example, if two of the four stated UoP categories relate to circularity, 50% of the total loan volume was included.
- For sustainability-linked loans, circular activities are not the primary activity of the investee company, then that deal value was included in proportion to the percentage of loan KPIs that are related to circular economy objectives/activities—the ‘circular percentage’. For example, if three of 12 KPIs related to circularity, then 25% of the total loan volume was included.

3.3.3 Regional allocation

To determine the region of investments, deals were attributed to the country of the headquarters of the company receiving the financing. Regions were grouped into continents according to the UNSD Country to Region mapping, as displayed in Table seven.

Table seven summarises the region to country mapping.

Region	Countries
Africa	Angola, Burundi, Benin, Burkina Faso, Botswana, Central African Republic, Ivory Coast, Cameroon, Democratic Republic of the Congo, Republic of the Congo, Cape Verde, Djibouti, Algeria, Egypt, Eritrea, Ethiopia, Gabon, Ghana, Guinea, The Gambia, Kenya, Liberia, Libya, Lesotho, Morocco, Madagascar, Mali, Mozambique, Mauritania, Mauritius, Malawi, Namibia, Niger, Nigeria, Rwanda, Sudan, Senegal, Sierra Leone, Somalia, South Sudan, São Tomé and Príncipe, eSwatini, Seychelles, Chad, Togo, Tunisia, Tanzania, Uganda, South Africa, Zambia, Zimbabwe
Asia	Afghanistan, United Arab Emirates, Armenia, Azerbaijan, Bangladesh, Bahrain, Brunei, Bhutan, China, Cyprus, Georgia, Hong Kong, Indonesia, India, Iran, Iraq, Israel, Jordan, Japan, Kazakhstan, Kyrgyzstan, Cambodia, South Korea, Kuwait, Laos, Lebanon, Sri Lanka, Macau, Maldives, Myanmar, Mongolia, Malaysia, Nepal, Oman, Pakistan, Philippines, North Korea, Palestine, Qatar, Saudi Arabia, Singapore, Syria, Thailand, Tajikistan, Turkmenistan, Turkey, Taiwan, Uzbekistan, Vietnam, Yemen
Europe	Albania, Andorra, Austria, Belgium, Bulgaria, Bosnia and Herzegovina, Belarus, Switzerland, Czech Republic, Germany, Denmark, Spain, Estonia, Finland, France, United Kingdom, Greece, Croatia, Hungary, Ireland, Iceland, Italy, Liechtenstein, Lithuania, Luxembourg, Latvia, Monaco, Moldova, Republic of Macedonia, Malta, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russia, San Marino, Serbia, Slovakia, Slovenia, Sweden, Ukraine
North America	Bermuda, Canada, Greenland, United States of America
Oceania	Australia, Fiji, New Caledonia, New Zealand, Papua New Guinea, French Polynesia, Vanuatu, Samoa
South America and the Caribbean	Aruba, Argentina, Antigua and Barbuda, The Bahamas, Belize, Bolivia, Brazil, Barbados, Chile, Colombia, Costa Rica, Cuba, Cayman Islands, Dominican Republic, Ecuador, Guatemala, Guyana, Honduras, Haiti, Jamaica, Mexico, Nicaragua, Panama, Peru, Paraguay, El Salvador, Suriname, Trinidad and Tobago, Uruguay, Venezuela, British Virgin Islands

3.3.4 Sector allocation

Sectors classifications differ per source. Each data source's sector classification was mapped to the *International standard industrial classification of all economic activities, Level 1* (ISIC r4—Level 1), a United Nations Statistics Division (UNSD) classification of economic activities.

However, in so doing, the interpretation of how the strategies were being applied was losing information and valuable insights. For instance, whilst some data sources differentiated between second-hand textiles retail activities and second-hand electronics activities, under ISIC—Level 1, these would all be grouped under 'Wholesale and Retail Trade'.

Following this, the study adopted a classification based on the categories determined by the EU *Circle Economy Action Plan*, namely: electronics and ICT, batteries and vehicles, packaging, plastics, textiles, construction and buildings, and food, water and nutrients.

For some companies and activities, it is not possible to cluster them to one of these categories, or to differentiate between these categories, for instance:

- A manufacturing company producing basic metals in a circular way (through the use of secondary inputs, for instance) cannot be allocated to any one EU *CEAP* sector as the metals may be used across a range of different sectors;
- A company producing plastics packaging using only recycled inputs fits into both the plastics and packaging EU *CEAP* sectors.

Therefore, this categorisation was further simplified based on the data availability and size of each sector cluster (for data visualisation). The final sector classification is shown in Table eight.

Table eight lists sector classifications.

Sector grouping as per lead visual	Constituent sectors as per report analysis
Agrifood and Water	Agriculture, Food services
Manufacturing and Trade	Manufacturing, Wholesale and retail trade
Built Environment	Construction, Architecture, Utilities, and Other infrastructure
Transportation	Automotive, Rail, Maritime, Related repair, maintenance, rental and leasing, and platforms related infrastructure
Services and Other	All other sectors not mentioned above

It is important to note that here, as in Section 3.2, that some software and data companies offer products and services related more closely to one of the other categories, and hence they are included in that other category, for instance:

- A digital platform selling second-hand clothing or electronics is considered under 'Trade'.
- A data company preparing predictive maintenance services on ships is considered under 'Transportation'.

3.4 Resource and climate impact

Resource impact refers to the total physical raw material use over the period 2018–2023 from related sectors. Climate impact refers to the total CO_2 equivalent emissions over the period 2018–2023 from related sectors.

These resource use and climate impact figures were extracted from the database underlying the *Circularity Gap Report 2025.* The *CGR 2025* provides a comprehensive measure of material circularity at the global level.

The CGR indicators are based on extended economy-wide material flow accounting (EW-MFA) principles taken from the work of Mayer et al. (2018), Haas et al. (2020) and other prior research. The underlying measurement framework

fully integrates waste flows, recycling, and downcycled materials with traditional EW-MFA statistics. In the CGR model, the approach is further extended to include indirect flows, the trade of secondary materials, and other elements.

Furthermore, there is methodological alignment with key international frameworks, including the *Conference of European Statisticians (CES) Guidelines for Measuring Circular Economy, Part A: Conceptual Framework, Indicators and Measurement Framework* and the *ISO/DIS 59020:2023(E) Circular Economy Standard* to allow for comparability and transferability from the globe to other levels (national or industry or business).

The calculations draw from over 100 multilateral and national data sources, along with expert estimates and modelling techniques for data gap-filling, all of which is built into an extensive data infrastructure. The primary data sources underlying the materials and emissions figures are the IRP Global Material Flow database, specifically the TCCC bundle and Eurostat's env_ac_mfa datasets for the globe and Europe, respectively, as well EDGAR v8.0, Exiobase v3.8.2 and Eora v199.82 extensions.

For more information regarding the database and methodology underlying the *CGR 2025*, please refer to the associated methodology document.

4. Further research

This study forms the first baseline study of investment into circular businesses globally. Further research could seek to:

1. Fill data gaps, as well as continue to track new data for recent years;
2. Connect the current baseline investment to actual changes in material and resource use, as well as economic benefits/losses, so as to begin to measure the efficacy of investment at local and global scales and create a more elaborate circular economy business case;
3. Elaborate the link to other financing areas (climate change or conservation).

Further research to fill data gaps could include:

- Inclusion of capital raised by bonds;
- Tracking public sector investment in sorting, collection and recovery facilities in the countries with the largest waste generation and cycling;
- Investigating and tracking investment in circular economy projects for the biggest listed companies in the world (Fortune Top 500);
- Widen the extent of philanthropic funding. Continue to evaluate the project portfolios within the biggest grant giving institutions, as well as identify and incorporate financing from all circular economy focused grant giving institutions;
- Incorporate financing to circular SMEs, working with national and regional banks;
- Carry out region-specific research to validate data or fill data gaps, also including regional public finance;
- Study public investment in infrastructure supporting the circular economy.



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