

I. Glossary

This section provides definitions of key terms used in the Plastics Circularity Investment Tracker (PCIT):

- Plastics Circularity
- Circular Economy Activity Categories
- Plastics Circularity Archetypes
- Investment
- Investment Categories
- Investment Stages by Deal Types
- Classification of Emerging Markets and High-Income Economies

Plastics Circularity

Plastics circularity, for the purposes of the PCIT and the report, is defined as a system that drives a circular economy for plastics, which includes technologies, business models or other solutions that eliminate, reduce, reuse, or keep plastic materials in circulation without leaking into the environment.

In the 2025 edition of the PCIT, The Circulate Initiative has classified transactions according to the four Circular Economy Activity Categories from the [Harmonized Circular Economy Finance Guidelines](#) (“Guidelines”) published by the International Finance Corporation (IFC) in May 2025. For continuity with prior versions of the PCIT, we have mapped the four IFC categories to the eight archetypes used in previous versions of the PCIT, as shown below:

IFC Circular Economy Activity Categories	Archetypes
Circular Design and Production	Redesign
	Materials
Circular Use	Refill/Reuse
Value Recovery	Recovery
	Recycling
+Circularity Enablers	Services
	Operational Platforms
	Digital Mapping

**Circular Economy Activity Categories**

The following definitions are taken from the Guidelines:

Circular Economy Activity Categories	Sub-Categories	Definition
<b>1. Circular Design and Production</b>	Category 1A: Circular Design	Design phase of products/assets/services that incorporates circular economy strategies or principles, including the reduction of material inputs and use of regenerative inputs, and increased ease of reuse, repair, or recycling.
	Category 1B: Circular Production	Production processes that reduce virgin raw material usage and increase production effectiveness.
<b>2. Circular Use</b>	Category 2: Circular Use	Lifetime extension of products and assets such as through repair, refurbishment, reuse, retrofitting, and remanufacturing.
<b>3. Value Recovery</b>	Category 3A: Collection and Sorting	Collection and sorting to enable circularity of end-of-life products and materials.
	Category 3B: Material Recirculation	Organic and non-organic material management, recycling, and recovery.

**+ Circularity Enablers**

**+Circularity Enablers**

- Products, services, business models, platforms, and tools that enable circularity across different segments of the materials life cycle, including increased intensity of use.
- A project, economic activity, or business model can receive the designation of +Circularity Enabler if it is also tied to Circular Design and Production, Circular Use, or Value Recovery

#### Plastics Circularity Archetypes

Archetype	Description and examples of companies focusing on the archetype <sup>1</sup>
Materials	<p>Firms that focus on the production or use of alternatives to single-use plastics or other applications.</p> <p>Example(s): Fiber-based alternatives, such as molded bagasse, or other compostable substitutes for takeout foodservice ware.</p>
Redesign	<p>Firms that redesign an existing product and/or packaging system with consideration of its performance and value, resulting in products and packaging that are more reusable or recyclable than typical models. Firms included may also redesign existing systems to improve reuse or recycling, such as for the segregation of materials.</p> <p>Example(s): Eliminating polyvinyl chloride (PVC) labels from polyethylene terephthalate (PET) bottles, or shifting from multi-layered packaging to mono-material.</p>
Refill/Reuse	<p>Firms that substitute or eliminate single-use and other plastic products through reuse, refill or product-as-service business models. These firms reflect a diversity of business models intended to eliminate single-use plastics.</p> <p>Example(s): Zero waste or bulk stores that offer refill services if consumers bring their own packaging, or reuse and refill systems that might require a deposit to incentivize the return of packaging.</p>
Services (driving plastics circularity or plastic waste management)	<p>Firms that support, through their services, the actors involved in driving a circular economy for plastics along the whole plastics value chain. These include, for example, firms that offer services that facilitate alternatives to plastics, reuse, account for plastic usage, audit and offer assurance of plastic waste flows, and/or quantify collected waste plastics in line with EPR regulations or voluntarily.</p> <p>Example(s): Service providers that enable organizations to calculate their plastic footprint or firms that offer EPR accounting and reporting services.</p>
Operational Platforms enabling plastics circularity	<p>Firms that offer “on-demand” software, technology platforms, or mobile applications that specifically support a circular economy for plastics. These platforms, for example, allow individual consumers and/or companies to request at-home or business collection of recyclable plastics.</p> <p>Example(s): Operational platforms that facilitate waste collection, recycling, or marketplaces.</p>

<sup>1</sup> As the understanding and knowledge of plastics circularity and investments in plastics circularity improve, we will continue to refine and update these definitions

Archetype	Description and examples of companies focusing on the archetype <sup>1</sup>
Digital Mapping	<p>Firms that offer digital technology or platforms that are intended to map and/or trace material flows, document the location of waste management infrastructure, or provide insights on waste volumes or composition.</p> <p>Example(s): Blockchain ledger technology that maps and traces the flow of waste plastics from the source of collection through reclamation and end of life.</p>
Recovery	<p>Firms that directly recover municipal solid waste (including plastic waste) for various purposes, including for recycling. While the principal focus is to ensure collection for disposal rather than for recycling, these businesses support plastics circularity through collection and sorting of plastic waste for recycling before disposal.</p> <p>Example(s): Plastic and waste collection services.</p>
Recycling	<p>Firms that offer informal and formal collection, processing or sorting, and reclamation of waste plastic for recycling, as well as firms with technologies to recycle waste plastic into flakes, pellets, or finished products.</p> <p>Chemical/advanced recycling is included here. Chemical/advanced recycling describes a diverse suite of technologies that use solvents, enzymes, supercritical fluids, heat, and pressure to regenerate polymers, or break down polymer chains to produce monomers or hydrocarbon feedstocks that can be used to create new plastic.<sup>2</sup></p> <p>Example(s): Waste management companies and non-profit organizations working with the informal sector to collect waste plastics for recycling, reverse vending machines to collect bottles, and companies that recycle and reclaim plastics.</p>

## Investment

Investment is defined as private financing in the form of grants, equity/quasi-equity, debt, and blended finance structures, including credit guarantees and other similar financial instruments. Investment covers capital flows to companies and technical assistance accompanying other forms of investment and not the provision of in-kind investments, such as non-monetary technical assistance. Funding via bilateral or multilateral donor aid agencies, or from national, state or local governments/government departments and agencies, is not included.

<sup>2</sup> Circularity Concepts. (2022). *Advanced Recycling Technologies and a circular economy for plastics* [online]. Available from: <https://www.circularityconcepts.org/module-3-advanced-recycling-technologies>

#### Investment Categories

Investment categories for the PCIT are based on the provider of capital and the investment type for circularity transactions. These include accelerators, incubators, banks, foundations, family offices, corporates, individuals, investment firms such as private equity and venture capital firms, and the general public through initial public offerings (IPOs). Investment categories and their definitions specific to PCIT include:

Investment Category	Definition <sup>3</sup>
Accelerator / Incubator Investments	Cash or recoverable funding provided by accelerators, incubators, or entrepreneurship support organizations (other than directly by corporate) as part of early stage development.
Corporate Investments	Investment through joint venture, merger, acquisition, secondary transaction involving minority equity purchases from another investor, asset purchases, and/or direct funding. Bonds issued by corporations and grants provided by corporates to startups involved in plastics circularity are also included.
Financing by Banks	Financing in the form of loans (secured or unsecured) or bonds provided by commercial or multilateral development banks.
Individual / Crowdfunding / Philanthropic Investments	Return-seeking investments received from an individual, a group of individuals, or private foundations.
Private Equity (PE)	Capital invested in private companies or in public companies which are then taken private. Private equity funds pool money from multiple investors (e.g., pension funds, endowments) and make investments in companies of varying maturities.
Venture Capital (VC)	A sub-set of private equity that is focused on early stage companies.
Initial Public Offering (IPO)	The process of offering shares in a private corporation to the public for the first time. An IPO allows a company to raise equity capital from public investors. Secondary offerings are also included.

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<sup>3</sup> As the understanding and knowledge of plastics circularity and investments in plastics circularity improve, we will continue to refine these definitions

# PLASTICS CIRCULARITY INVESTMENT TRACKER

## METHODOLOGY

### JULY 2025



#### Investment Stages by Deal Types

The deal types that fall under each investment stage specific to this report are listed in the table below.

Seed	Early Stage	Later Stage	Exits
Accelerator/Incubator	Early-stage VC	Blue Loan	Buyout/LBO
Angel	Series A	Green Loan	IPO
Capitalization	Series B	Conventional Debt	Joint Venture
Convertible Note	Series C	Corporate Asset Purchase	Merger/Acquisition
Crowdfunding	Series D	Corporate Bonds	Public Investment Second Offering
Grant	Venture Round	Corporate/Strategic Investments	Reverse Merger
Pre-seed Round		Debt – General	
Seed Round		Green bond	
		Later-Stage VC	
		Mezzanine	
		Expansion	
		PE	
		PE Growth/Expansion	
		PIPE (Private Investment in Public Equity)	
		Post IPO – debt and equity	
		Restart – Later VC	
		Series E	
		Sustainability-linked Bonds	
		Sustainability-linked Loans	

**Classification of Emerging Markets and High-Income Economies**

From the World Bank’s FY2026 classification of countries based on their Gross National Income per capita data for 2024, emerging economies considered for the purpose of the PCIT include the countries categorized as “Low-income economies”, “Lower-middle-income economies”, and “Upper-middle-income economies” as described in the table below.<sup>4</sup>

Group	Gross National Income Per Capita	Example Countries
Low-income economies	≤US\$ 1,135	Afghanistan, Burundi, Yemen
Lower-middle-income economies	US\$ 1,136-US\$ 4,495	India, Kenya, Viet Nam
Upper-middle-income economies	US\$ 4,496-US\$ 13,935	Argentina, Brazil, China, Malaysia, Thailand, South Africa
High-income economies	>US\$ 13,935	Australia, Chile, Germany, Netherlands, UK, US

**II. Research Methodology**

The PCIT seeks to capture all third-party private investments in plastics circularity.

The Circulate Initiative consulted various databases (Crunchbase, Environmental Finance, Net Zero Insights, PitchBook Data Inc., and Tracxn) covering private market transactions and filtered data for third-party investments made in plastics circularity solutions globally for the review period. We included known deals from publicly available sources and those identified through discussions with investors that were not captured by the databases. We categorized investments according to investment categories, circular economy activities, and archetypes, and aggregated the data to generate insights while maintaining the transactions’ anonymity.

We screened the transactions included in the PCIT to meet one or more of the following criteria:

- Plastics circularity is a core function of the business operations of the investee company. For example, a company that is involved in producing bioplastics.
- Where plastics circularity is not a core function of the investee company, the investment should be directly attributed to a plastics circularity-linked purpose. For example, an investment in a fast-moving consumer goods company for the collection of polyethylene terephthalate (PET) bottles for recycling.
- The use of proceeds of the investment fall within one of the eight solution archetypes tackling the plastic pollution challenge defined above.

<sup>4</sup> World Bank. (2025). *World Bank Country and Lending Groups* [online]. Available from: <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519>

For companies where plastics circularity is not the core function, we conducted additional reviews of the company's business and the relevant transaction to ascertain suitability for inclusion in the PCIT. Details of reviews undertaken for various sectors are available in the [Frequently Asked Questions document](#) (see question no. 9).

The following additional considerations apply to debt financing, including loans, sustainability-linked bonds, green bonds, and blue bonds:

- Loans, syndicated or otherwise, for which information is not available in the public domain or through the databases accessed are excluded.
- Sustainability-linked bonds:
  - Issued by plastics circularity-focused companies are included in their entirety.
  - Issued by other companies are excluded. Proceeds from sustainability-linked bonds are intended to be used for general purposes and information on the exact quantum of money applied to plastics circularity is typically unavailable. For example, a US\$ 100 million sustainability-linked bond issued by a fast-moving consumer goods company is excluded even if one of the key performance indicators relates to recycling.
- Use of proceeds bonds (e.g., green bonds, blue bonds, sustainability bonds):
  - Issued by plastics circularity-focused companies are included in their entirety.
  - Issued by other companies, and where a part of the use of proceeds is allocated for plastics circularity, are included as the use of proceeds for these bonds are more specific. For these transactions, the total quantum of the investment is divided into equal proportions among the various use of proceeds indicated by the issuer. For example, US\$ 25 million is included in the year of issue from a US\$ 100 million green bond issued by a fast-moving consumer goods company that has reported four types of use of proceeds, one of which relates to recycling.

Figure 1 outlines the main steps we followed to determine whether to include a deal in the PCIT.

The PCIT excluded the following data:

- Public funding; e.g., local government investment in waste management services.
- Paycheck Protection Program in the US: a loan backed by the U.S. Small Business Administration, provided to small businesses during the Covid-19 pandemic.
- Transactions involving spin-off, debt conversion, debt repayment, debt refinancing, recapitalization, secondary market transaction, internal company projects, sale-leaseback facility, and share repurchase.
- Investments in alternative materials if the products were not primarily intended to replace plastics; e.g., investments in firms producing glass bottles for alcoholic beverages without the intention of replacing plastic.
- Deals where the investee's primary business is not in plastics circularity or instances where the amount of financing received for such purposes was unavailable.
- Money collected in a pool of funds or bonds raised in a collective manner by development finance institutions, where allocation of funds to specific companies is unavailable.
- Proceeds from the purchase or sale of plastic credits.



This edition of the Plastics Circularity Investment Tracker updates our approach to calculating private investments directed towards plastics circularity. Our consultation with industry representatives and other organizations contributed to this refreshed approach. This edition excludes transactions related to debt refinancing, recapitalization, and secondary market transactions. Although these transactions represent financial flows, they do not provide fresh capital to the recipient businesses. With this change, we aim to strengthen the alignment of the PCIT with other global efforts tracking financing for tackling environmental issues.

**Figure 1: Decision Tree for Screening Plastics Circularity Deals and Deal Value**

