

WORLD BANK GROUP

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IBRD • IDA

IFC International Finance Corporation

MIGA Multilateral Investment Guarantee Agency

FINANCING THE CIRCULAR ECONOMY TRANSITION

Jeju, Korea
August 2026

Circular Economy: an economic model reducing resource dependance & waste

From a linear economic model

Take → Make → Waste

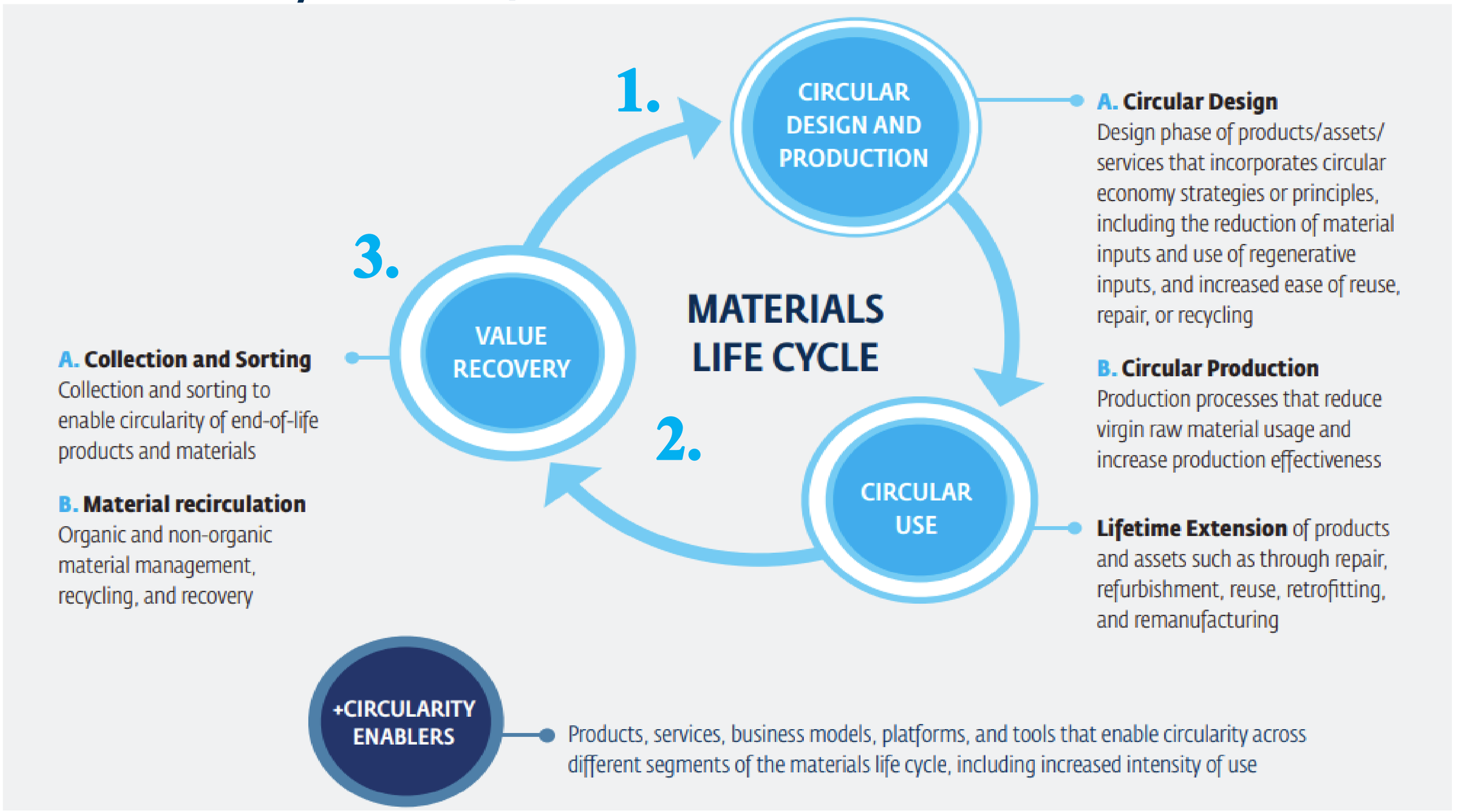
To a circular economy, an economic model that:

- Minimizes the use of natural resources
- Maintains the value of products and materials in the value chain
- Prevents or reduces waste

IFC



Circular Economy Activities focus on the “how” to reduce resource use & waste



Circular activity already employs 121-142 million people worldwide

121-142M

people employed in circular activities worldwide

5-5.8%

of global non-agricultural employment

74M+

circular workers in the informal economy

2,882+

national policy actions across 17 sectors

The transition is already underway. The financing system has not caught up.

Sources: WBG–ILO–Circle Economy, Employment in the Circular Economy (2025); Chatham House (2024).

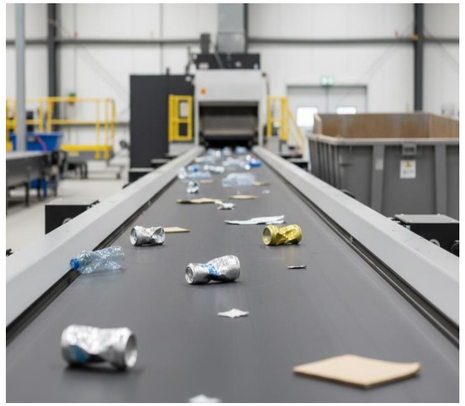
Scaling CE investments face 3 key market challenges

Bankability

Cost of recycled vs. virgin materials



Inadequate feedstock supply



E&S Challenges

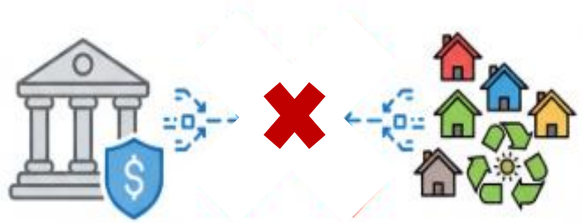
Informal Sector Presence



The informal sector plays a significant role across the supply chain, impacting the quality and reliability of feedstock, but solutions for social risks—and job creation—vary by geography.

Small Investment Sizes

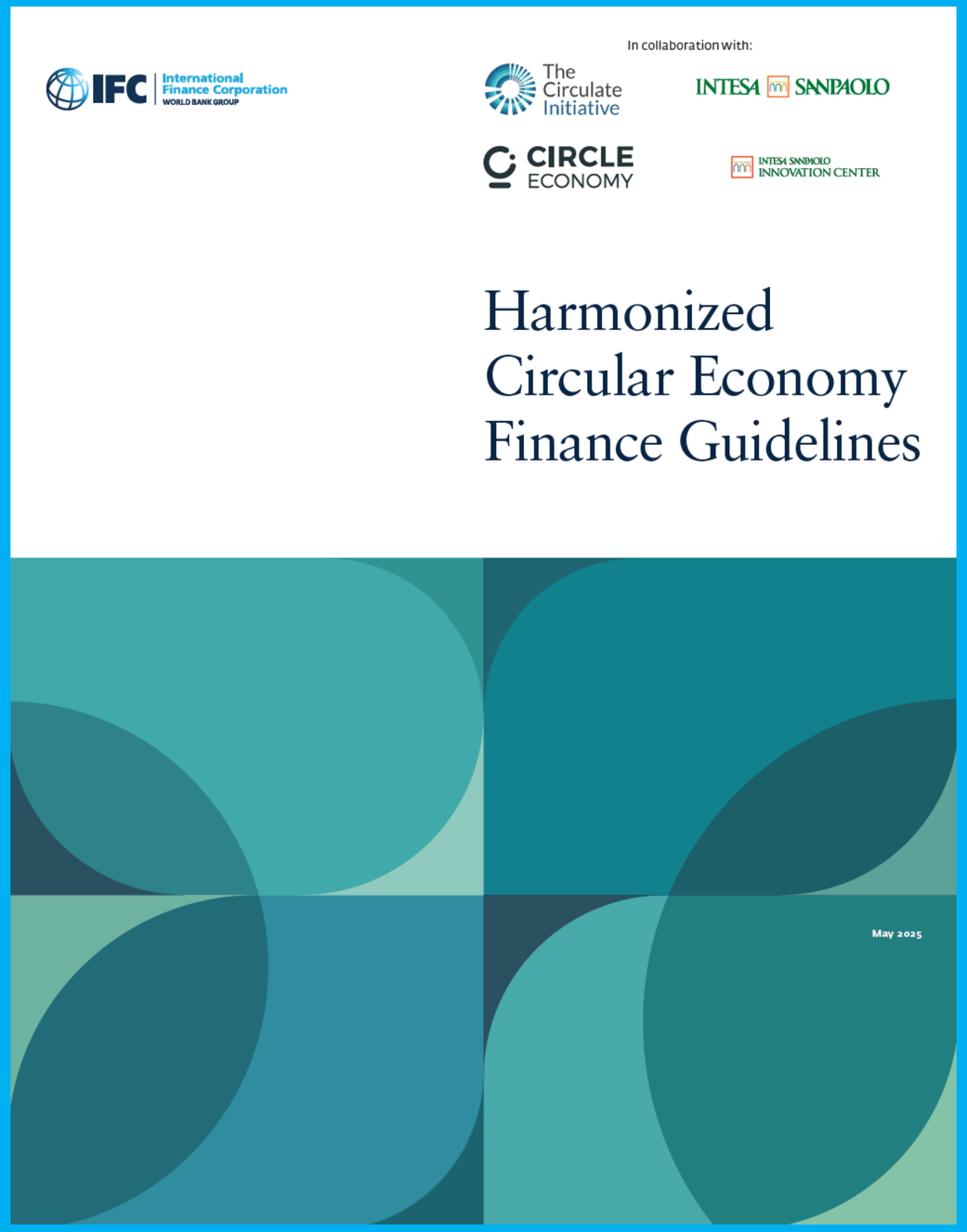
Limited engagement from FIs & other aggregators



Driven by limited understanding of CE opportunities & definitions



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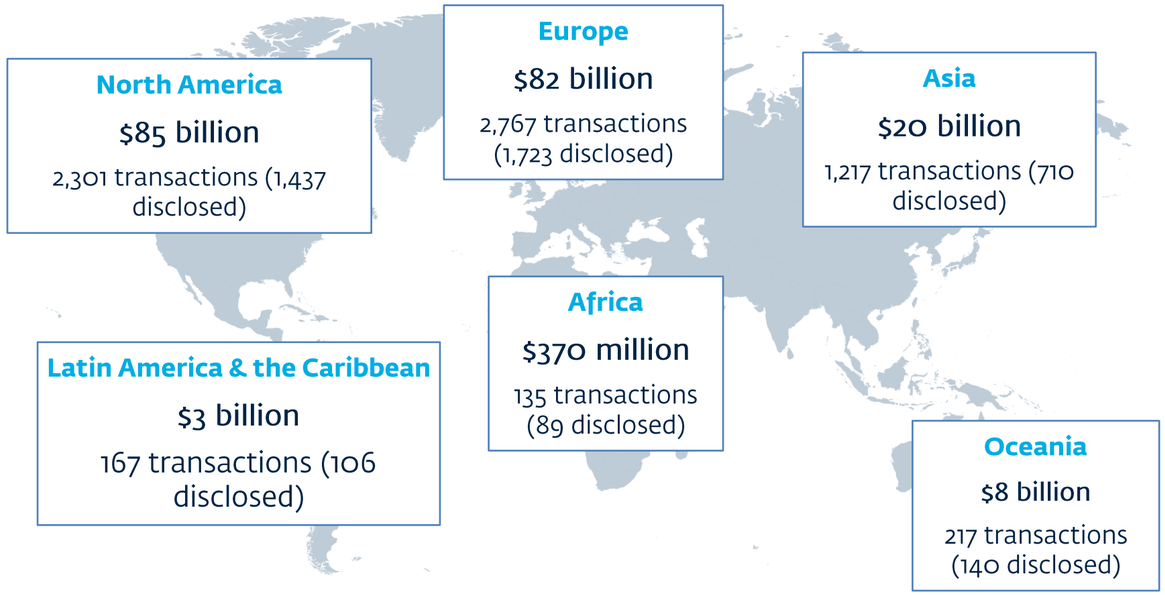


Harmonized Circular Economy Finance Guidelines

- Launched May 2025
- Practical tool to **identify and evaluate projects**, economic activities, and business models that contribute to a circular economy across the **materials life cycle**
- Promote **market convergence** and fit for purpose at global level
- **Sector agnostic** and follows a life cycle approach
- Approach to **assess and quantify circular economy finance volumes**

IFC's Circular Economy Investment Tracker highlights that global investments flow unequally across regions

*CEIT maps publicly disclosed private sector investments from 2018 – 2024 in three sectors: **electronics & appliances, packaging and textiles***



BY THE NUMBERS:

$198B in private investment across 98 economies

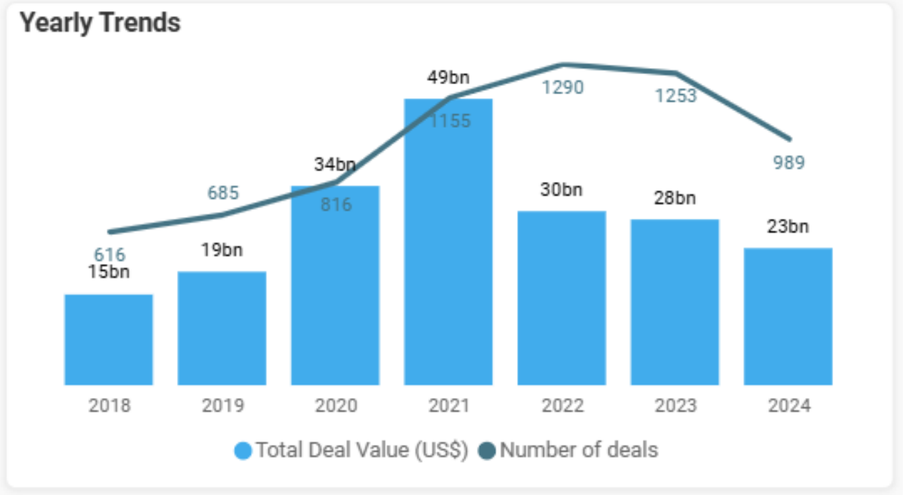
7% directed to emerging markets

0.2% invested in Africa

IFC's Circular Economy Investment Tracker

Peak investment volume - $47 billion in high-income countries (2021) and $4.2 billion (2022) in low-income countries - **coincided with**:

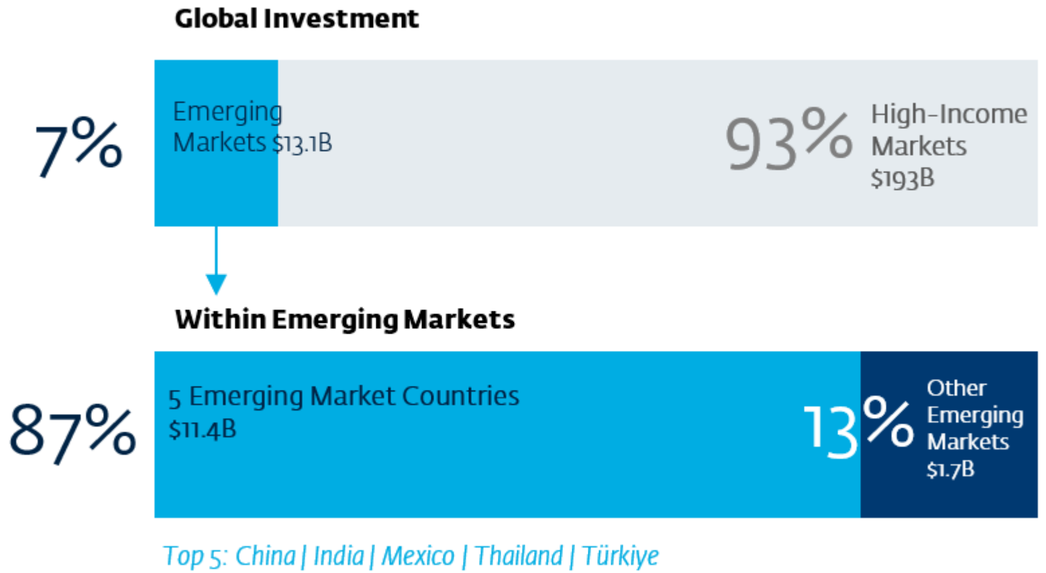
- high transport and raw material input costs
- policy momentum (plastic treaty negotiations; EPR schemes)
- corporate sustainability commitments



Geographic concentration:

- 84% of total investment flowed to North America and Europe
- 87% of emerging market investment was concentrated in just five countries (China, India, Mexico, Thailand, Turkiye)

51% of investments flows to emerging markets are in upstream and midstream activities (design, manufacturing, product life extension) compared to 40% in high-income markets



WBG finances circularity to both public and private sectors

IFC — PRIVATE

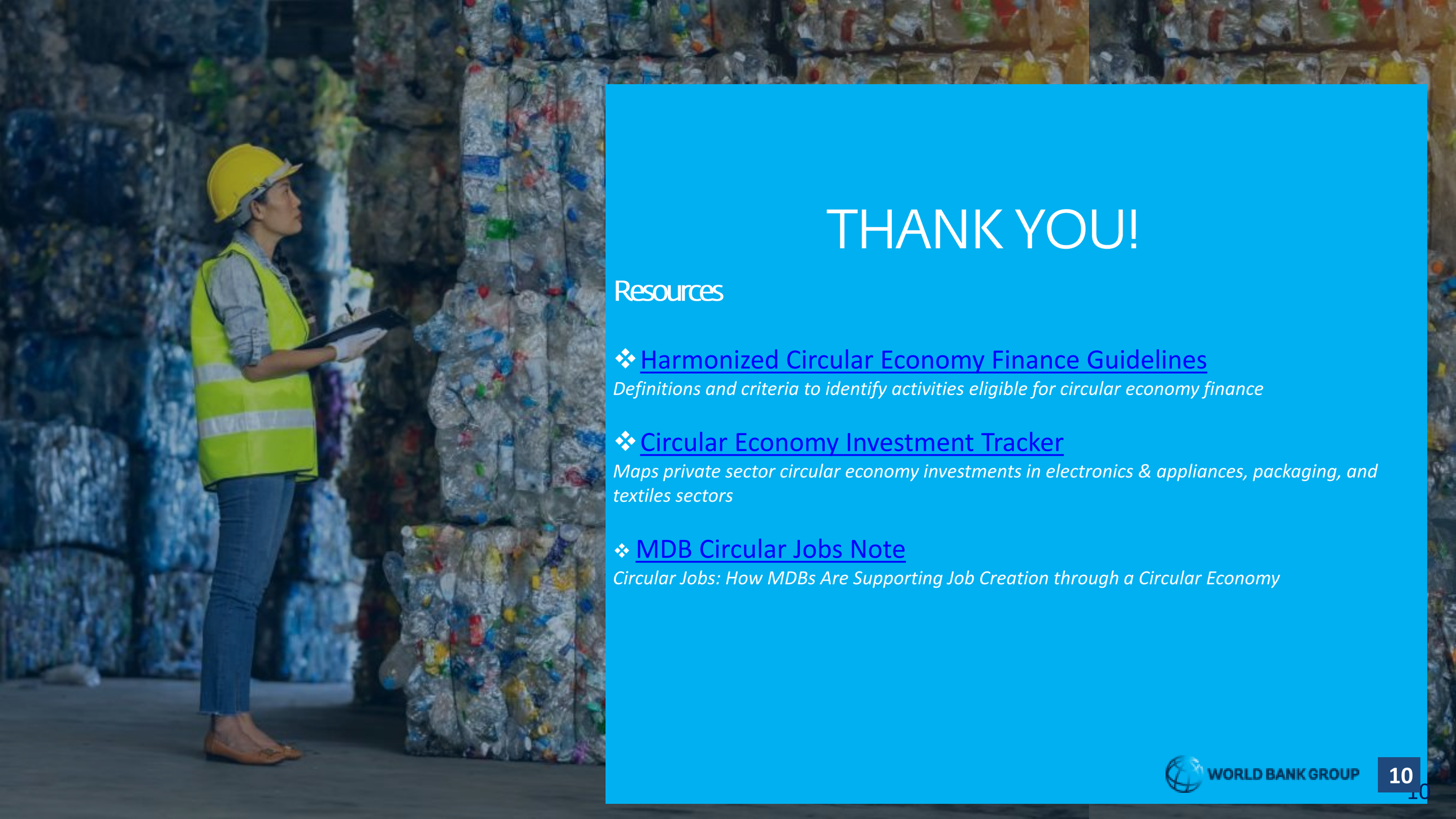
More than $2 billion committed since 2015, across 37 countries, with nearly $500 million mobilized alongside.

WORLD BANK — PUBLIC

19 projects carrying measurable circular economy actions between 2008 and 2023, worth $3.48 billion, mainly in downstream waste management.

PROBLUE — TRUST FUND

Over $2 billion in investments supported that integrate plastic waste management across Sub-Saharan Africa, South Asia and Latin America.



THANK YOU!

Resources

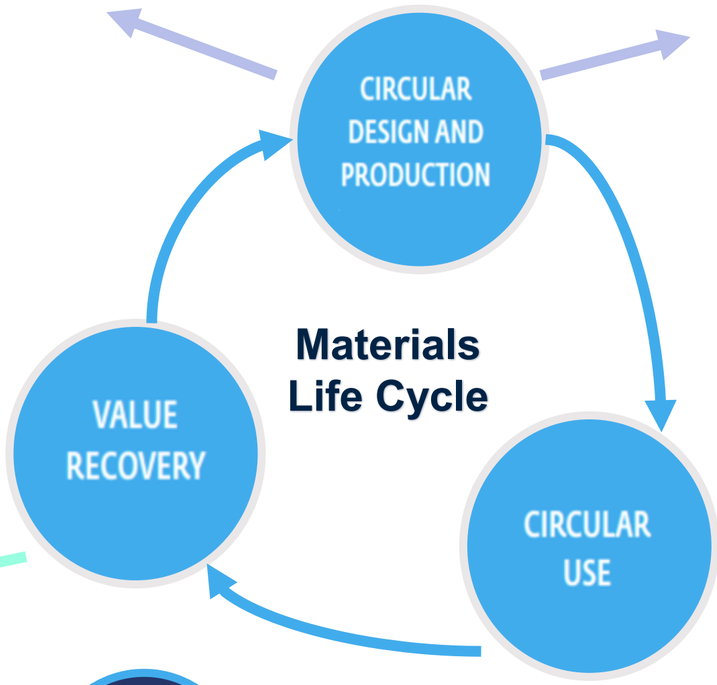
- Harmonized Circular Economy Finance Guidelines
  Definitions and criteria to identify activities eligible for circular economy finance
- Circular Economy Investment Tracker
  Maps private sector circular economy investments in electronics & appliances, packaging, and textiles sectors
- MDB Circular Jobs Note
  Circular Jobs: How MDBs Are Supporting Job Creation through a Circular Economy

IFC IS SUPPORTING CIRCULAR ECONOMY TRANSITION ACROSS THE LIFE CYCLE

America Embalagens
Brazil, 2025

The major Brazilian packaging manufacturer is expanding its plant to produce plastic preforms for the personal care industry.

The project's circular design approach includes **lighter packaging, mono-materials for recyclability, and a commitment to at least 20% PCR plastic resin** by the end of the loan tenure.



São Martinho
Brazil, 2021

IFC's financing package to São Martinho, one of Brazil's leading producers of sugar, ethanol, and renewable energy, includes a twelve-year $55 million loan from own account and a parallel loan mobilized from another investor.

The project supports regenerative agriculture techniques, which include **the reuse of industrial waste to produce organic fertilizers and recycling nutrients.**

KIOO
Tanzania, 2024

Through the installation of a new production line, the project increases production of glass containers **with at least 17 reuse/refill cycles, which is much higher compared to the imported alternative.**

It also helps reduce the share of PET packaging in the market.

Eneris Group
Poland, 2025

The 4th-largest private waste management company in Poland is expanding its capacity for **collection, sorting, treatment, and recycling of municipal and industrial waste.**

By increasing collection and recycling rates and reducing landfill, Eneris demonstrates an integrated supply chain model for **material recirculation**.

AtRenew
China,2015

IFC's early investment enabled ATRenew to **scale a tech-enabled platform for collecting, refurbishing, and reselling used electronic devices** in China.

By 2021, the company had processed and transacted over 31 million used phones, raising the national reuse rate and reducing e-waste.

Designing plastics packaging solutions in Brazil: America Embalagens

IFC's investment in America Embalagens is supporting the upgrade of its production facilities to manufacture newly designed packaging that uses less plastic and incorporates more recycled content.

AMERICA EMBALAGENS



CHALLENGE

- Brazil's plastic production generates approximately 8 million tons of CO_2 equivalent annually, highlighting the need for more sustainable production methods in the packaging industry.
- The packaging sector requires advanced technologies to create products with less materials, and use a higher percentage of recycled plastic, reducing its reliance on virgin materials.

IFC ENGAGEMENT



- IFC provided a $70 million loan to America Embalagens to modernize its facility in Jundiaí, São Paulo.
- The upgraded facility will **produce packaging using less materials** and up to **80% post-consumer recycled (PCR) plastic**, driving efficiency and reducing environmental impacts associated with traditional plastic production.
- This investment may help catalyze broader adoption of circular economy practices within Brazil's packaging sector by demonstrating the viability of advanced recycling technologies.

IMPACT



- America Embalagens will significantly reduce plastic waste by integrating up to 80% recycled plastic in its production of packaging for personal hygiene products, diverting plastic from landfills and reducing the environmental footprint.
- This project can serve as a market demonstration for other companies in the personal care packaging industry, showcasing how recycled plastic can be an economically viable solution that promotes a shift towards circular economy practices across the sector.

Supporting PET recycling facilities in Ghana and Nigeria: Mohinani Group

IFC's investment in Mohinani Group is helping scale PET recycling in Ghana and Nigeria by turning plastic waste sourced from local businesses into high-quality packaging materials.

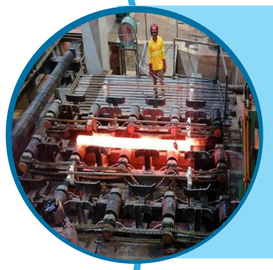
MOHINANI



CHALLENGE

- Both Ghana and Nigeria face challenges in managing plastic waste, leading to environmental pollution and reliance on imported virgin plastics.
- High import costs for virgin PET resins strain local economies and hinder the development of sustainable manufacturing practices.

IFC ENGAGEMENT



- In 2025, IFC partnered with Mohinani Group to establish **PET recycling plants** in Accra, Ghana, and Lagos, Nigeria.
- Each plant is designed to **produce up to 15,000 tons of recycled PET (rPET) resins** annually, substituting virgin PET in food-grade and beverage packaging.
- Approximately **90% of raw materials will be sourced from local small businesses involved in plastic waste collection,** promoting community engagement and economic empowerment.

IMPACT



- The initiative will **recycle up to 30,000 tons of PET waste annually**, reducing reliance on virgin plastics and lowering greenhouse gas emissions.
- By producing with locally sourced rPET, the plants will save approximately $21 million annually in import costs for each country.
- The project is expected to create over 4,000 direct and indirect jobs across the value chain, with a focus on empowering young people and women.

Expanding municipal material recovery in Oman, Morocco, & South Africa: Averda

IFC's investment in Averda supports the company's growth in emerging markets and ability to build circular economy solutions across Oman, Morocco, and South Africa.



CHALLENGE

- Overall recycling rates are 6.6% in Africa and 9% in the Middle East, with very limited number of recycling facilities. **Waste generation is expected to triple in sub-Saharan Africa and double in North Africa.**
- **Rapid urbanization and population growth have placed pressure on cities in these markets** to advance the pace of investments in waste collection, which has limited private sector engagement.

IFC ENGAGEMENT



- IFC's $30 million loan (with an additional $150 million mobilized) to UAE-based Averda supports a leading waste management and recycling company to develop circular economy solutions.
- Averda is increasingly focusing on sustainable solutions that extract value from waste, driving the circular economy. The investment will **increase private-sector led integrated waste management services with a focus on material recycling, including plastic**.

IMPACT



- Averda provides waste management services to over 60,000 private and public sector clients, covering around 12 million residents across 8 countries in the Middle East, Africa, and South Asia.
- The recycling projects in Morocco, Oman, and South Africa will **help these countries achieve their waste recycling targets**. Additional capacity for mechanical plastic recycling facilities will increase material recovery through composting and recycling and help prevent plastic pollution.

Enabling reuse of electronics in China: ATRenew

IFC's investment in ATRenew (fka. AiHuiShou) supports a circular economy by enabling large-scale electronics reuse and recycling which reduces e-waste, and extends the lifecycle of valuable materials.

万物新生
ATRENEW

CHALLENGE



- China is the world's largest mobile phone market, with over 500 million new devices sold annually.
- An estimated 2.5 billion electronic devices remain in circulation, but the formal reuse and recycling rate is low.
- Before ATRenew's founding in 2011, China's used-phone recycling rate was under 1%, with most e-waste handled informally or improperly disposed.

IFC ENGAGEMENT



- IFC's early investment enabled ATRenew to **scale a tech-enabled platform for collecting, refurbishing, and reselling used electronic devices** in China.
- IFC also advised ATRenew on expanding its circular model internationally, including facilitating its investment in Brazil's Trocafone to replicate best practices in emerging markets.

IMPACT



- By 2021, the company had processed and transacted over 31 million used phones, **raising the national reuse rate and reducing e-waste.**
- Refurbished devices are now redistributed to lower-income communities, promoting digital inclusion while keeping materials in use and **extending product life cycles**.

Promoting plastics recycling with blue finance in Romania: Banca Transilvania

IFC's blue financing loan to Banca Transilvania supports TeraPlast Group's shift toward a circular plastics economy, boosting sustainable manufacturing and recycling in Romania.

BANCA BT TRANSILVANIA®

TeraPlast® since 1896

CHALLENGE



- Romania faces significant challenges in plastic waste management, with limited infrastructure for recycling and a pressing need to adopt circular economy principles in manufacturing.
- Despite a domestic demand of approximately 30,000 tons annually for stretch film, over half is met through imports, highlighting inefficiencies in local production and missed opportunities for using recycled materials.

IFC ENGAGEMENT



- IFC provided a €100 million blue financing loan to Banca Transilvania, Romania's largest bank — **the first blue financing loan issued in Central and Eastern Europe.** The financing is designed to support micro, small, and medium enterprises engaged in **sustainable plastic and water management.**
- Through this initiative, TeraPlast Group received a €16 million blue loan to expand its Opal stretch film factory, which **uses advanced equipment to produce high-quality goods with recycled content** — directly supporting Romania's transition to a circular plastics economy.

IMPACT



- TeraPlast Group is increasing its use of recycled materials in its new Opal factory, which operates 24/7 to meet domestic demand with locally produced, circular products.
- The financing has enabled TeraPlast to improve recycling efficiency, promote sustainable manufacturing, and reduce plastic waste.
- This project illustrates **how blue finance can scale circular economy solutions in Eastern Europe.**

Recycling metal scrap in Ghana: Rider Steel

IFC's investment in Rider Steel is enabling the production of steel from locally recycled scrap metal, reducing reliance on virgin raw materials and lowering the carbon footprint of the construction sector.

RIDER STEEL
Steel Recycling and Manufacturing

CHALLENGE



- The global steel industry is one of the largest CO2 emitters, and Ghana's steel demand is growing rapidly, with total annual demand exceeding 1 million tons.
- In 2024, local production capacity in Ghana was limited to 800,000 tons, with imports filling the remaining gap.

IFC ENGAGEMENT



- In 2020, IFC invested $12 million in Rider Steel to support the construction of a greenfield induction furnace-based steel mill in Kumasi, which is designed to produce up to 240,000 tons of rebar and specialty steel annually.
- The plant primarily uses **steel scrap sourced locally, reducing the need for virgin materials** and enhancing materials circularity within the local economy.

IMPACT



- The new plant was completed in 2023, with the potential to replace 200,000 tons of steel imports.
- By **using scrap steel instead of virgin iron ore,** the plant significantly reduces the carbon footprint of steel production in Ghana, promoting a circular steel economy that keeps materials in use and lowers overall emissions.
- As part of its renewable energy initiatives, the plant has installed 4.3 MW in solar power capacity.

Accelerating textiles recycling in Türkiye: Sanko Tekstil

IFC's investment in Sanko Tekstil supports the development of a recycled textile facility in one of Türkiye's earthquake-affected regions.

SANKO

CHALLENGE



- The February 2023 earthquakes devastated Gaziantep, one of Türkiye's industrial hubs, disrupting supply chains and damaging key manufacturing facilities.
- Limited access to long-term, green financing has stalled the region's recovery and hindered the transition to sustainable, circular production models.

IFC ENGAGEMENT



- IFC's investment, which is Sanko Tekstil's first-ever green loan, supports the **development of a green-certified recycling facility.**
- Sanko Tekstil, part of the largest regional conglomerate in earthquake-affected Türkiye, is **integrating circular economy principles by recycling textile waste into high-quality fibers,** reducing reliance on virgin materials.

IMPACT



- The new recycling facility will more than **double Sanko Tekstil's recycling capacity to 200,000 tons per year**.
- The project is expected to create 850 direct and nearly 2,500 indirect jobs
- Beyond the IFC investment, Sanko Takstil is looking to adopt more efficient spinning machinery, increasing its yarn and knit fabric production capacity by almost 70 percent, and reducing the cost of raw materials.

Incentivizing municipal recycling and waste reuse in Croatia: Zagreb Holding

IFC's investment in Zagreb Holding is supporting Croatia's transition to a circular economy by enabling future investments in waste infrastructure aimed at reducing landfill use, increasing recycling, and aligning national practices with EU sustainability targets.

ZAGREBAČKI HOLDING



CHALLENGE

- Croatia generates approximately 6 million tons of waste per year, with more than 50% of municipal waste currently ending up in active landfills.
- Limited infrastructure for waste separation and material recovery hampers Zagreb's ability to implement a full circular waste management system.

IFC ENGAGEMENT



- IFC is helping Zagreb Holding, Croatia's largest utility company, implement the city's sustainability strategy and long-term infrastructure investment plan.
- IFC served as the anchor investor in the first municipal utility sustainability-linked bond in Central and Southern Europe, playing a key role in bringing this innovative financing to market.
- The bond structure incentivizes the utility to increase the share of waste that is recycled or reused, reducing dependence on landfilling and supporting Croatia's circular economy transition.

IMPACT



- The investment unlocked capital for the development of advanced waste sorting facilities with the capacity to process 20,000 tons of plastic, 30,000 tons of paper, and treat 30,000 tons of biowaste annually. By 2027, the project is expected to divert 132,000 tons of waste from landfills—a 44% reduction in landfill volume—while boosting recycling and reuse rates by 31%.Through improved sorting and recovery of plastics and paper, the investment advances a transition toward circular material flows and helps mitigate environmental impacts.

Enhancing materials recovery and waste management in Brazil: Orizon

IFC's investment in Orizon supported the development of Latin America's largest mechanized materials recovery facility, enhancing circularity by increasing the recovery and reintegration of recyclables from mixed municipal waste.

ORIZON
VALORIZAÇÃO DE RESÍDUOS



CHALLENGE

- Brazil generates 28 million tons of reusable waste annually, yet only about 4% is formally recycled.
- Adequate waste management remains a persistent challenge due to limited public sector investment capacity and fragmented infrastructure.



IFC ENGAGEMENT

- In 2023, IFC committed a $27 million corporate loan to Orizon, a leading waste management company in Brazil—marking the **first Sustainability-Linked Loan in the sector within an emerging market**.
- The investment supported the **construction of a Material Recovery Facility (MRF),** a key step in expanding Brazil's capacity to sort and reintegrate recyclables into production cycles.
- It also provided capital to upgrade three of Orizon's sanitary landfills, **enhancing systems for sorting, collection, and material tracking.**



IMPACT

- The mechanized MRF was the largest at the time of the investment in Latin America, with the **capacity to process 2,000 tons of waste per day.**
- The facility **recovers materials**—including plastics, paper, metals, and glass—from mixed municipal waste, **reducing landfill use and supporting supply chains** that rely on secondary raw materials.
- By promoting materials circularity, the project contributes to a reduction in virgin material extraction and supports the development of a more resource-efficient economy.