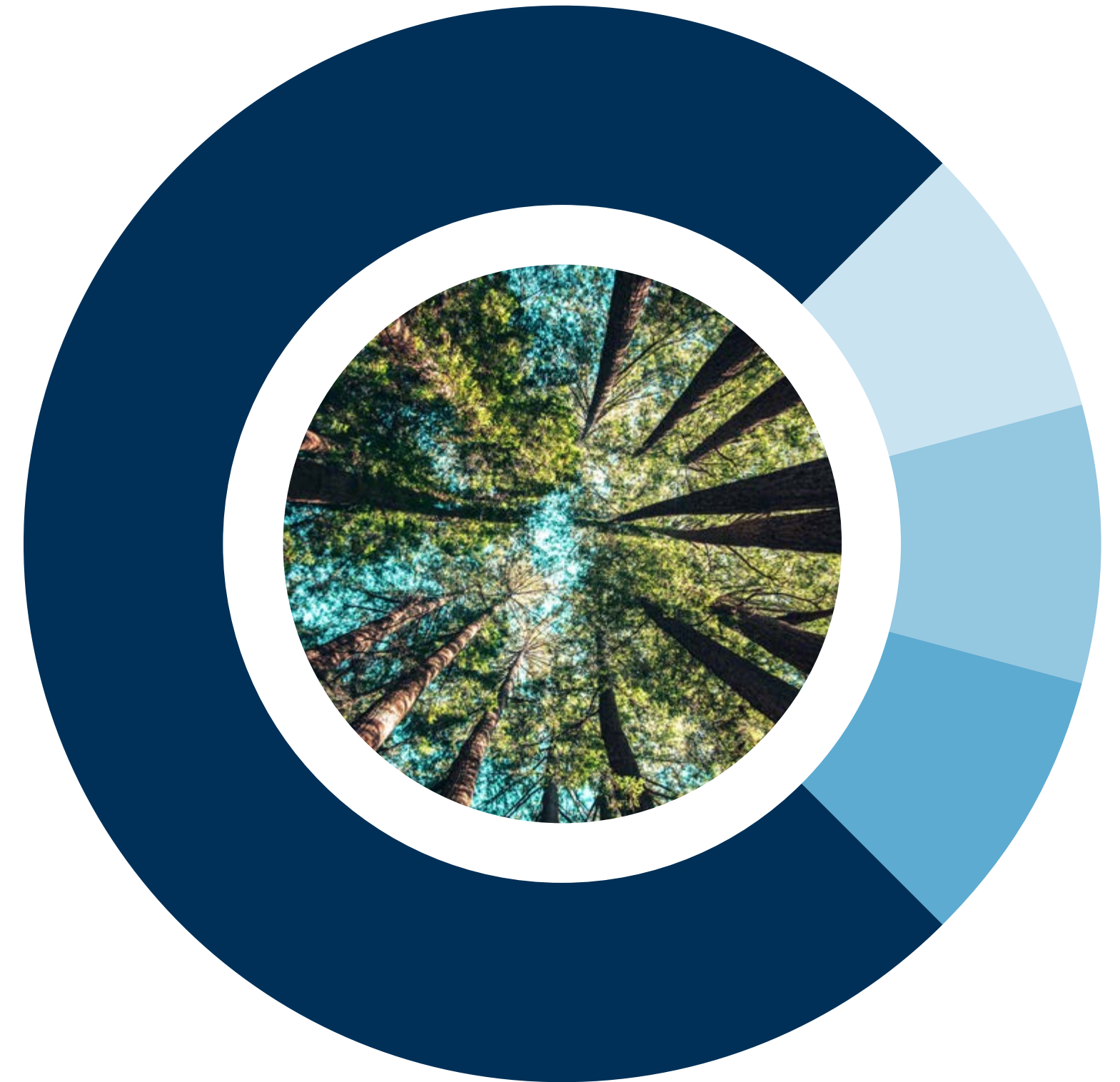




# Closing the Loop: The Transition to Circularity

Closed Loop Partners  
2021 Impact Report



## Letter From Our CEO



**2021 was a milestone year for the circular economy. Amidst COVID-19, global supply chain disruptions, increasingly urgent climate risks, mounting waste and dwindling finite resources, there has never been a more critical time to rethink how we produce, transport and consume goods. The world continues to adapt and build back from the effects of the pandemic, and the need for more transparent, more resilient and less wasteful systems is taking center stage—driving our work forward more than ever before.**

This year marks eight years since Closed Loop Partners was founded. We are encouraged by the continued growth and development of the circular economy in North America and beyond. Today, there is greater investor interest, more cutting-edge innovations, increased supportive policy, and a clear path forward. The circular economic model continues to show us what is possible. Through our collaborations with many of the world's largest retailers, consumer goods companies, technology companies, material science companies, family offices and financial institutions, our team continues to build on the firm's momentum, growing our portfolio to over 60 investments to accelerate the circular economy across

four sectors—plastics & packaging, food & agriculture, fashion and supply chain optimization technologies.

In 2021, we created new funds and grew existing ones. Our newly launched Circular Plastics Fund provides catalytic capital to solutions that keep valuable plastics out of landfills and in circulation. Our Closed Loop Ventures Group successfully closed their second venture fund to scale breakthrough innovations in the space. On the innovation side, our Center for the Circular Economy continued to form groundbreaking collaborations to solve complex material challenges, launching the Composting Consortium—our third industry collaboration—to strengthen composting infrastructure & recover compostable packaging and food scraps.

We have reached a critical moment in transitioning away from a linear economy, and advancing a circular economy. The value of a waste-free world has come to the forefront of priorities, and many innovators and investors are joining in this critical work, which only continues to strengthen the foundation of our vision. Looking back at 2021, we are thrilled to share the impact and outcomes we have collectively achieved, as we continue to pave the path ahead, working together toward a circular future.

**Thank you,  
Ron Gonen  
Founder & CEO of Closed Loop Partners**

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# Closed Loop Partners

Closed Loop Partners is the circular economy-focused investment firm and innovation center representing an extensive network of Fortune 500 corporations, institutional investors and family offices.

We invest in the circular economy, working to advance a new economic model focused on a profitable, sustainable and waste-free future.



# 2021 Snapshot

Our investments in the circular economy align capitalism with positive social and environmental impact. By reducing our dependence on the extraction of finite natural resources, and minimizing waste at end-of-life, we keep valuable materials in circulation and reduce greenhouse gas emissions.

**\$400M+**  
Assets under management

**60+**  
Investments made to date

**3**  
Industry Consortia

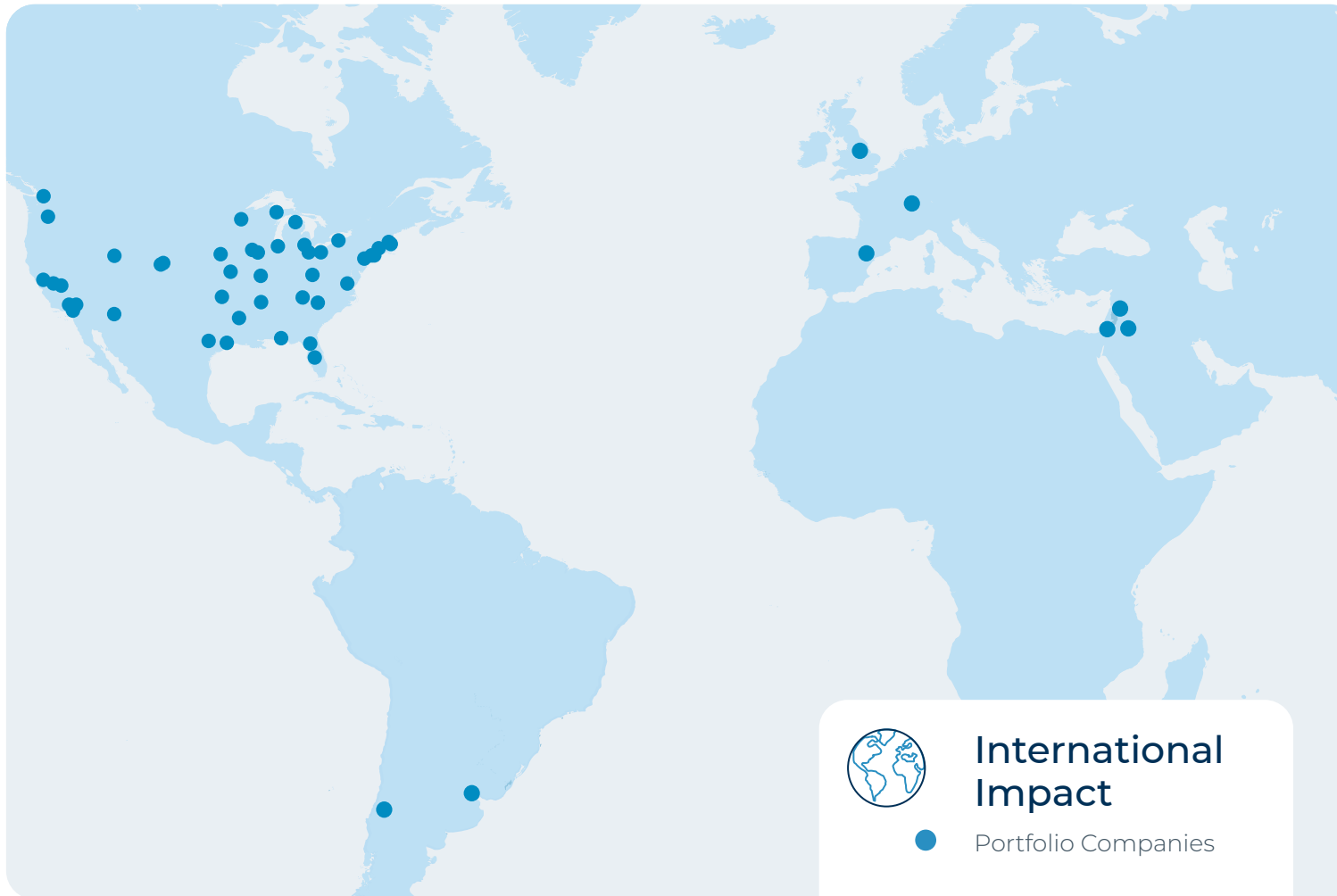

**25**  
Leading retailers and consumer goods companies brought together across three Consortia




**Global Reach**

**WITH AN OPERATIONAL FOCUS IN THE U.S.**

**PORTFOLIO COMPANIES IN 4 CONTINENTS, 8 COUNTRIES, AND 25 U.S. STATES**

**6.8M**  
tonnes of greenhouse gas emissions avoided



**3.8M**  
tons of materials kept in circulation



Our firmwide investments contribute primarily to the UN Sustainable Development Goal 12:



Our work across our funds also benefits the following SDGs:

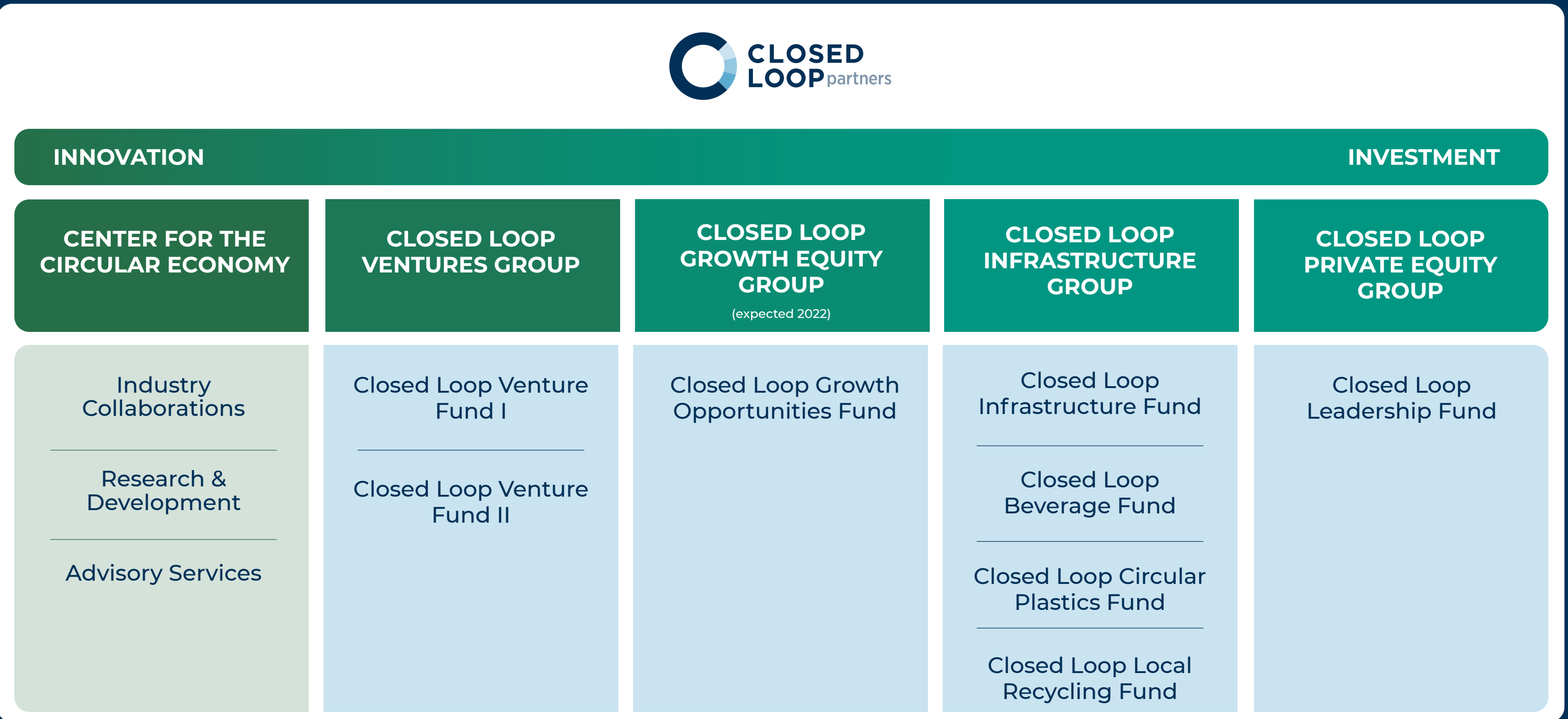




Through our portfolio companies and broader network, we impact all 17 SDGs.

# Our Approach to Accelerating the Circular Economy

We invest across a range of asset classes that accelerate the growth of early stage companies through established companies, in tandem with an innovation center that catalyzes circular solutions. Our business verticals create a differentiated platform fostering synergies to scale the circular economy.



# Our Journey to Date



# Our Ecosystem of Partners

The firm has built an ecosystem that connects entrepreneurs, industry experts, global consumer goods companies, technology companies, material science companies, retailers, financial institutions and municipalities.

Note: Logos featured in this graphic are a representative sample of our full ecosystem of partners.



\*Co-investors are capital participants in the same companies Closed Loop Partners is invested in



# Foundations of Our Impact Strategy

Closed Loop Partners actively builds our own impact frameworks, as well as supports key industry impact standards. We believe that accountability for positive and potential negative impact comes with increased harmonization and standardization, as well as regulatory support. As the impact space rapidly changes, we continue to align with best practices and evolve our systems to be at the forefront of impact management and measurement.

## TRANSPARENCY

As a signatory of the Impact Principles, we demonstrate our commitment to, and implementation of, a global standard for managing investments for impact. Our Impact methodology was featured in educational materials by UN SDG Impact.



Operating Principles for  
Impact Management



SDG Impact

## VERIFICATION

To date, Closed Loop Partners has been through five external verifications, from measuring a company's entire social and environmental performance to greenhouse gas accounting and alignment to impact principles.

CEA CONSULTING



## STANDARDIZATION

Our processes are aligned with core frameworks such as SDGs, IRIS and IMP. As the impact space grows, we will continue partnering with organizations that help accelerate impact standardization in the industry.

IMPACT  
MANAGEMENT  
PROJECT



SUSTAINABLE  
DEVELOPMENT GOALS

# Impact Frameworks in Practice

At Closed Loop Partners, we measure and manage our impact across four universal steps\*, integrating a variety of industry standards and frameworks.



\*Four universal steps developed by UN Development Programme (UNDP) and CASE at Duke University<sup>1</sup>

# How We Integrate Impact Into Our Investment Cycle

Across our investment funds, we integrate impact considerations at every stage in the investment cycle.



## How we manage metrics:

- 1 Identify potential impact** and ensure alignment with the intended impact of the fund.
- 2 Establish forecast** for “business as usual” and analyze potential outcomes without our involvement.
- 3 Set targets** and intended impacts on the identified metrics.
- 4 Collect & manage data** over time through portfolio companies’ provided reports.
- 5 Share progress** of each fund in aggregated reports to respective investors and stakeholders.

# The Case for Circularity

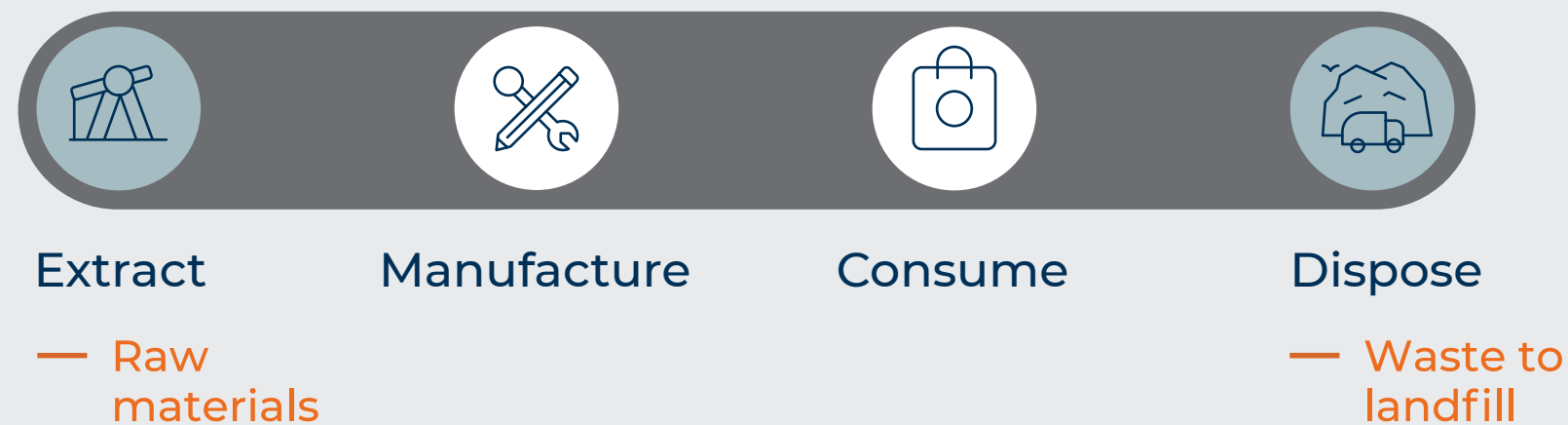
The circular economy  
presents a **\$4.5 trillion** opportunity  
by 2030 globally.

Accenture Strategy, "The Circular Economy Handbook:  
Realizing the Circular Advantage"

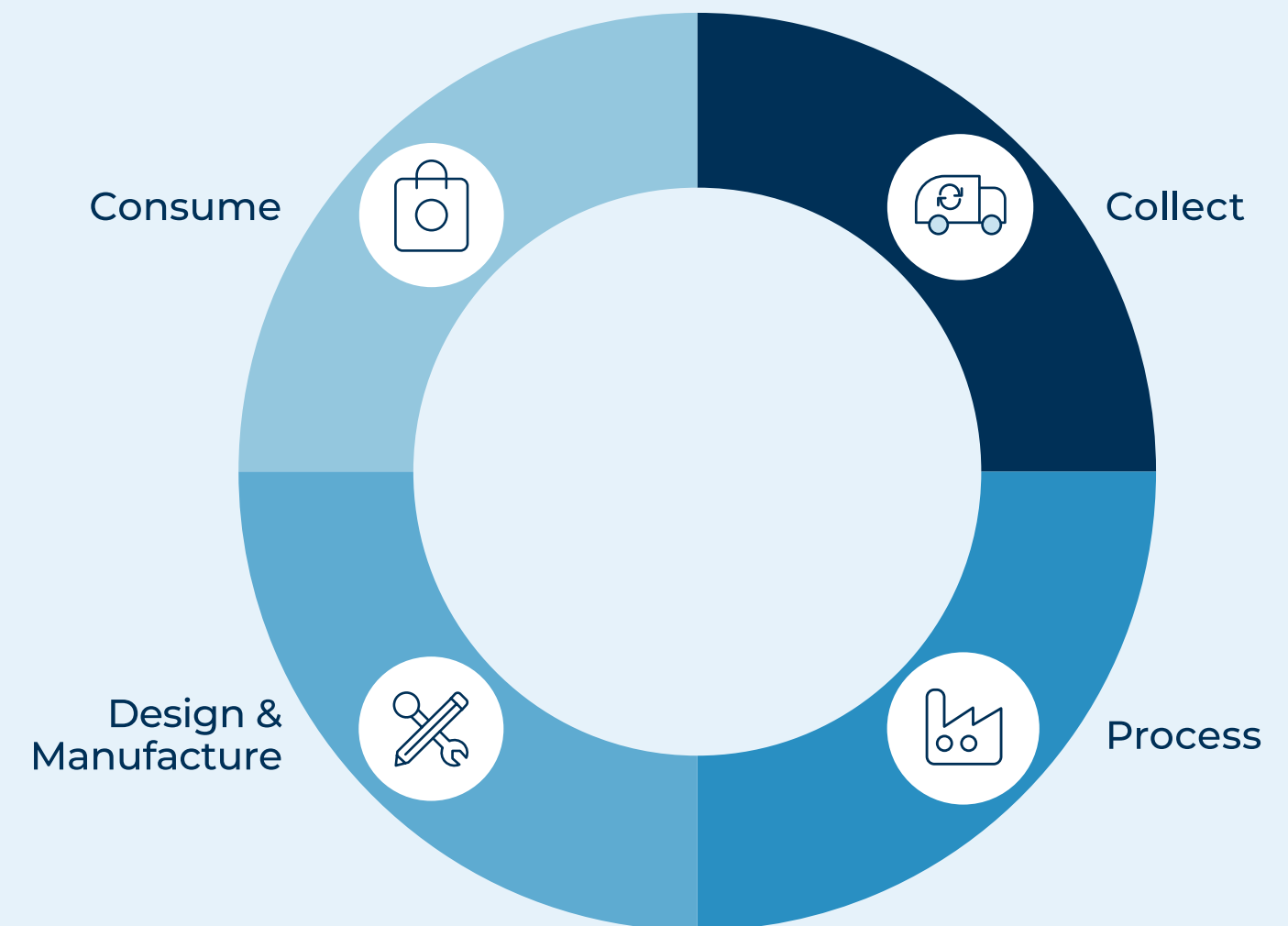
# What Is the Circular Economy

The circular economy is the most significant restructuring of global commerce since the industrial revolution. It is an overhaul of how products are designed, manufactured, sold, refurbished and remanufactured into new products. It is a framework for global corporations, innovators and governments to reduce costs, increase efficiency and protect the environment we share.

## Linear Economy



## Circular Economy



## How the Circular Economy Addresses Climate Change



### Reducing over-extraction of resources

Under our linear, take-make-waste system, we use more than 60%<sup>2</sup> more resources than the earth can generate.

*The circular economy enables the reuse and circulation of materials, so that we don't need to constantly extract more, and damage our planet in the process.*



### Reducing emissions

70%<sup>3</sup> of greenhouse gas emissions are related to material use: the production and use of products—from the buildings we live in to the food we eat.

*By building more efficient production systems, the circular economy can reduce the greenhouse gas emissions that warm our planet.*



### Keeping materials in play

By volume, global waste includes 44% food and organics, 17% paper and 12% plastic<sup>2</sup>—all valuable commodities.

*The circular economy aims to extend the lifetime of valuable resources, keeping materials in circulation for as long as possible.*



### Reducing our reliance on landfills

When waste decomposes in landfills, it releases methane, which is 84x more potent of a global warming agent than carbon dioxide in the first 20 years of its release<sup>2</sup>.

*The circular economy, by reducing waste and keeping resources in play, aims to remove the need for landfills all together.*

## How We Work Across Four Key Sectors to Scale the Circular Economy

### Plastics & Packaging

A circular system for plastics and packaging is consciously designed to use fewer materials in the design and delivery of products, and keeps materials in circulation at their highest value for as many generations as possible, if not infinitely.

### Fashion

A sustainable and circular future for fashion is resilient and resource-efficient, equitable for workers, and protects the environment we share. Incorporating circular models and processes as early as the design stage can reduce waste and increase efficiency at every stage of the apparel supply chain.

### Technology

Technology is an underlying pillar of the circular economy—critical to building transparent, efficient supply chains that optimize material flows and reduce waste at every opportunity. As more technology enters the market, building a circular system also ensures that the valuable resources used in technologies, such as electronics, never go to waste.

### Food & Agriculture

A circular food system is grounded in regenerative, sustainable agriculture practices and transparent value chains. These principles help enable perpetual growth without damaging ecosystems, channel nutrients back into the soil, reduce organic waste, and drive value across the system.

# Investment

Investment is a critical driver for accelerating the circular economy, encouraging innovation and enabling transformative companies to bring their solutions to scale.



# Closed Loop Ventures Group

---

Launched in 2017, the Closed Loop Ventures Group deploys early-stage capital into companies developing breakthrough solutions for the circular economy.

Closed Loop Ventures Group

## About Our Ventures Group

**\$75M+**  
assets under  
management across  
two funds

**27**  
companies invested  
in across two funds  
to date

**3,600+**  
investable pipeline  
opportunities  
reviewed since 2017

### WHAT IS THE CHALLENGE?

As we transition the economy from a linear model to a circular one, many inspiring founders have stepped up to the challenge of transforming legacy systems. However, this transformation takes talent, capital, industry and a network of support to move the needle.

### HOW DO WE SOLVE IT?

Closed Loop Ventures Group partners with founders who rethink how products are designed, manufactured and recovered, with the shared vision of reimagining supply chains and eliminating waste. We provide capital, connections to the broader Closed Loop Partners ecosystem, amplification and acceleration of these breakthrough technologies, and support for incredible founders.

### HOW WE ALIGN WITH THE UN SUSTAINABLE DEVELOPMENT GOALS



CONTRIBUTES TO SOLUTIONS



BENEFITS STAKEHOLDERS



ACTS TO AVOID HARM

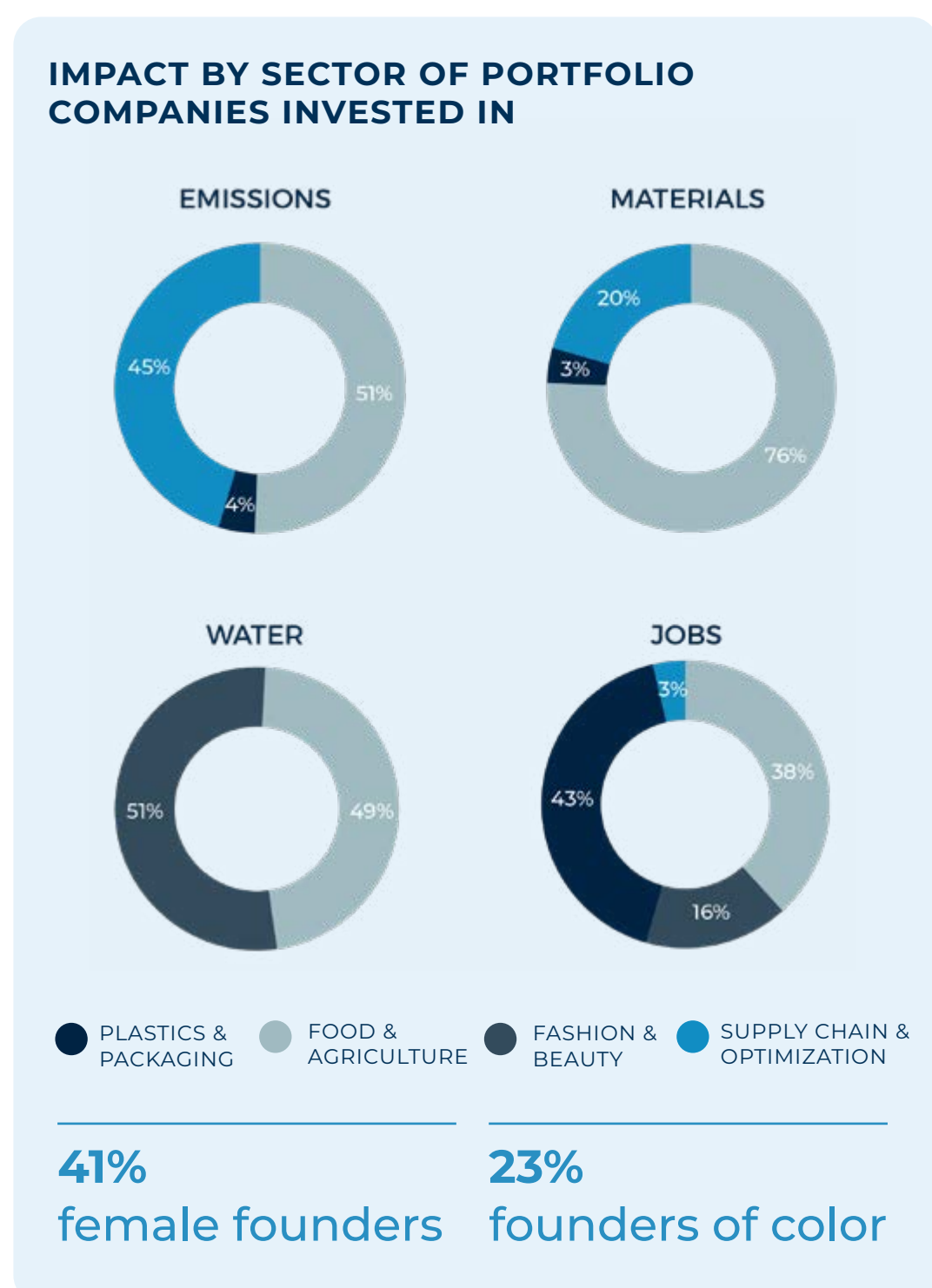
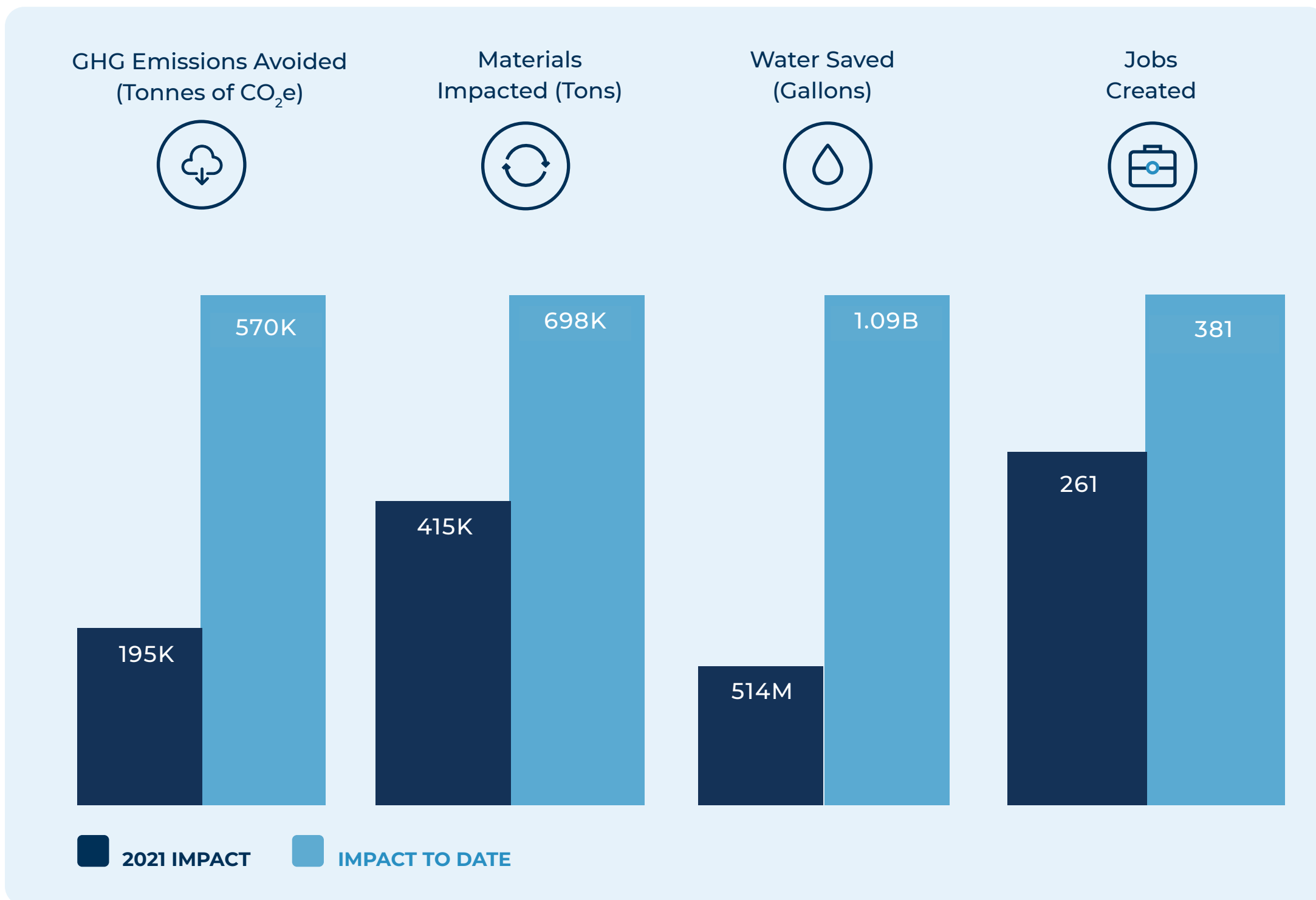


\*ABC Categorization Framework by IMP<sup>4</sup>

Closed Loop Ventures Group

# Our Impact by the Numbers

Closed Loop Ventures Group invests across the sectors of Plastics & Packaging, Food & Agriculture, Fashion & Beauty, Supply Chain & Optimization and measures the following social and environmental outcomes:



Closed Loop Ventures Group

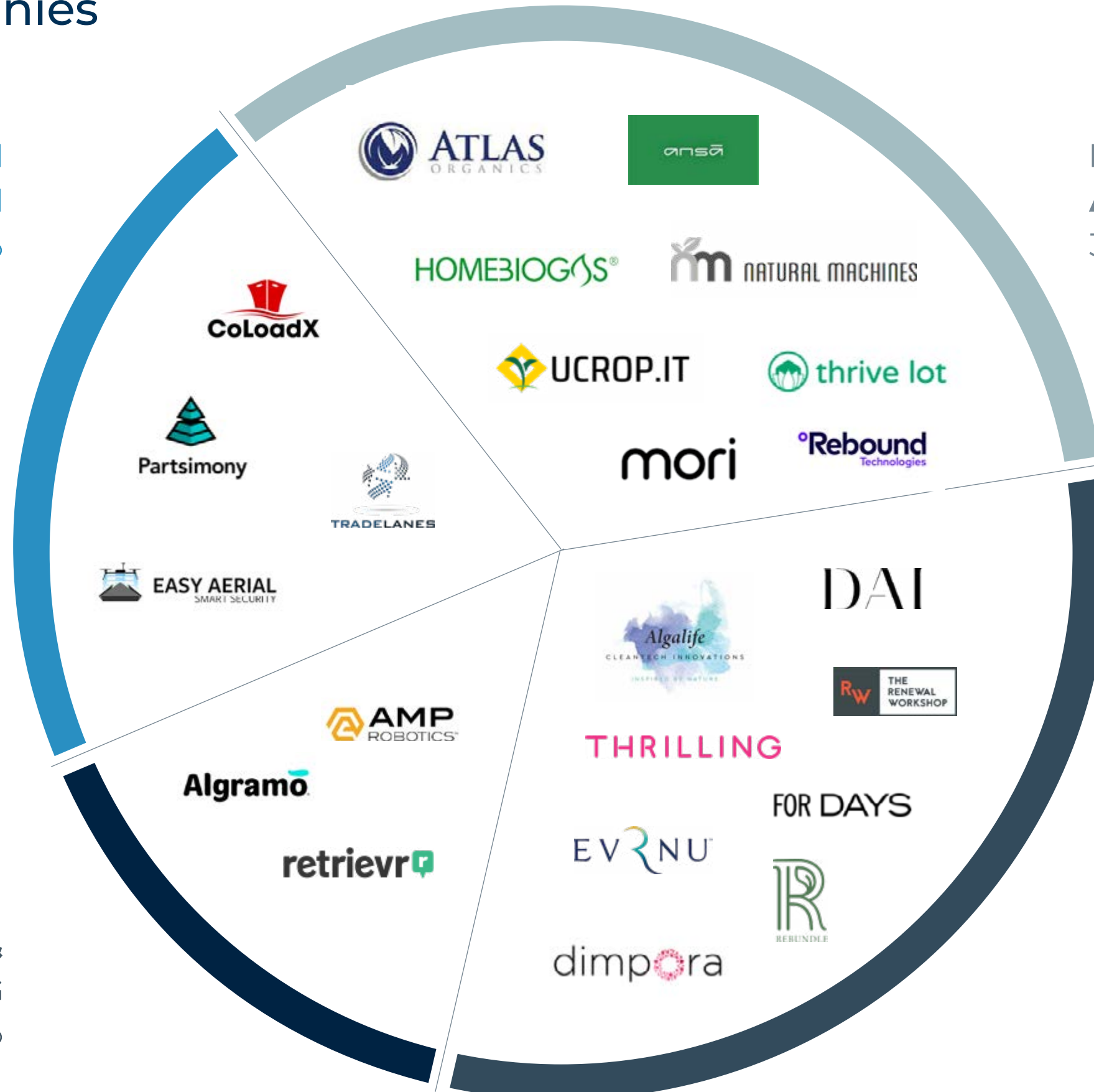
# Our Portfolio Companies

**SUPPLY CHAIN OPTIMIZATION**  
21%

**FOOD & AGRICULTURE**  
33%

**PLASTICS & PACKAGING**  
15%

**FASHION & BEAUTY**  
31%



\*In 2021, Closed Loop Partners successfully exited its investment in Atlas Organics, following its sale to a strategic investor aligned with impact outcomes and growth of the company

\*\*Rebundle is a recent investment made outside the reporting period, included here to show the full expanse of portfolio

Closed Loop Ventures Group

# Dimpora

*Putting Science at the Service of Nature and Performance*

Dimpora, a chemical company that develops sustainable and non-harmful membranes for apparel, is on a mission to create more sustainable alternatives for performance wear.

**What are your milestones from 2021?**

In 2021, we successfully closed our seed funding round of approximately \$2.2M in total—with Closed Loop Partners as one of the lead investors—to advance our circular membrane solutions. These membranes offer high performing waterproof, breathable and possibly biodegradable alternatives for outdoor wear, based on sustainable materials. With this increased

capital, we also grew the company, moving the whole team into our own new offices. Within the year, dimpora also won the deVigier award, receiving additional funding to invest back in the growth of the company.

**What is your vision moving forward? ?**

Our vision is to put science at the service of nature and performance. We are pushing to globally scale dimpora eco pur, a 2D product that involves a conventional lamination of the dimpora membrane onto a textile, to replace fluorinated chemicals typically used in the textile market. For dimpora’s circular sane membrane products, the company aims to reach full production width in the beginning of 2022, laying the groundwork for initial clothing prototyping with partner brands.



**Mario Stucki**  
Co-founder & CEO



**Anna Beltzung**  
Co-founder & CTO

**0 Toxic Chemicals**  
No PFC, PTFE and DMF solvent

**~\$100,000**  
deVigier Award funding

Closed Loop Ventures Group

# HomeBiogas

*Turning Organic Waste Into Clean Energy and Fertilizer*

HomeBiogas, a world leader in developing groundbreaking, simple-to-use biogas systems, continues to help people and businesses around the globe turn their organic waste into renewable energy and liquid bio-fertilizer on-site.

### What are your milestones from 2021?

With funding to expedite our research & development and grow our team, we advanced two new major products: the Commercial System and the Premium System. The Commercial System reduces waste treatment costs through an onsite organic waste solution for large kitchens. The system also saves energy costs by producing hot water, resulting in reduced electricity use and GHG emissions. This year, we also established a working pilot for our Premium System, designed for use in modern homes. Organic waste is fed directly into the system through the kitchen waste

disposal unit and is then turned into renewable energy, which is used as a water heating source for the home and fertilizer for the garden.

### What is your vision moving forward?

HomeBiogas aims to revolutionize the way we manage and capture organic waste. Instead of treating waste as a hazard that we need to send away, waste will and should become a resource that we would want to keep and use for our benefit. We are collaborating with strategic partners in the EU and the U.S., who currently operate in the waste management market. At the same time, we are improving our value proposition by enabling HomeBiogas solutions to integrate into households, restaurants and hotels, and multi-family complexes to address the challenges they face concerning organic waste treatment. With the demand for sustainable agriculture on the rise, we also aim to become a significant player in the organic fertilizer market, helping farmers cook with clean energy instead of charcoal or wood, while simultaneously using the fertilizer to continue to grow healthy crops.



**Oshik Efrati**  
Founder & CEO

**9,000 tons**  
Waste diverted from landfill

**80,000 tonnes**  
CO<sub>2</sub>e emissions avoided

**14,000+ units**  
Sold to date in 100+ countries

**\$94,000,000**  
Initial Public Offering (IPO) in Israel

Closed Loop Ventures Group

# Partsimony

*Harnessing Data to Advance Local Supply Chains*

Partsimony helps hardware companies turn designs into products with less time, capital and frustration than ever before.

### What are your milestones from 2021?

This year, Partsimony made progress building out the zero-trust infrastructure of our new platform. We began to unlock the network effects of the system, with hardware companies onboarding their own manufacturers to the Partsimony network, creating a robust database for shared use. As a result, many hardware companies scaled to production with a monthly average order value increase of 1,444% as of 2021 year-end, compared to January 2021.

### What is your vision moving forward?

Our vision is to become the partner of choice by scaling our platform to revolutionize the way physical products are made and scaled for a more sustainable future. Using our SaaS network, we will continue to unify disparate data from multiple sources, enabling manufacturers to more efficiently manage hardware from prototype through production, bringing superior intelligence to manufacturing supply chains.



**Richard Mokuolu**  
Co-founder & CEO



**Roland Mokuolu**  
Co-founder & COO

**More than 80%**  
Cost reduction savings

**More than 60%**  
Lead time reduction

COMPONENT 32  
197AGDF99  
FABRICATION  
EST. COST: \$2,237  
MFG A IN INDIA

COMPONENT 47  
197AGDF99  
CNC MACHINING  
EST. COST: \$1,537  
MFG B IN USA

COMPONENT 53  
197AGDF99  
FABRICATION  
EST. COST: \$287  
MFG A IN FRANCE

COMPONENT 82  
19AGG5967  
ELECTRONICS  
EST. COST: \$37  
MFG B IN CHINA

COMPONENT 12  
19AGG5953  
FABRICATION  
EST. COST: \$2  
MFG C IN INDONESIA

Closed Loop Ventures Group

# Thrilling

## *Building the Future of Vintage Apparel*

Thrilling, a digital marketplace that brings the best secondhand and vintage clothing stores in the United States online, has made significant strides in opening access to reusable apparel.

### **What are your milestones from 2021?**

In 2021, the growing market for vintage clothing continued to drive our success, with a recently closed \$8.5 million Series A raise. With 700 shops on our platform today, and an average 17% month over month top line revenue increase in 2021, Thrilling is well positioned for continued growth. By the end of 2021, we launched our platform for the first time on the app store, with a completely redesigned user experience.

### **What is your vision moving forward?**

Our vision is to become the partner of choice for all the vintage and high-quality secondhand shops around the world, with every high-quality secondhand and vintage item digitized and discoverable on our site. We at Thrilling hope to make vintage shopping a habit for most people, so they turn to secondhand options first, and help drive forward a circular fashion economy.



**Shilla Kim-Parker**  
Founder & CEO

---

**5 tons**

Clothing kept in circulation

---

**18 tonnes**

CO<sub>2</sub>e emissions avoided

---

**700 shops**

On one platform



Closed Loop Ventures Group

# Thrive Lot

*Bringing Healthy Soil Closer to Home*

Thrive Lot, a platform for installing and maintaining edible, ecological landscaping and more, brings regenerative agriculture and yard-to-table health to backyards across the United States.

## What are your milestones from 2021?

Founded in 2019, Thrive Lot has already made significant growth since our inception. In 2021, we completed our first 20 projects, leading to 6.2 acres regenerated, 4,800 perennial plants installed and 2.6 million gallons of water retained, according to our Impact Methodology.

## What is your vision moving forward?

As we continue to grow, we have another 100 projects in process that should create five times the impact we already achieved. Once the new projects are in place, this would already mean ~25,000 new perennial plants and trees getting life in new spaces. Our goal is to make the process of creating these installations easier and more efficient for all parties involved. Within the next five years, we aim to install over 20,000 projects. With 40 million acres of United States lawns alone that need regenerating, our opportunity for growth is robust, laying the groundwork for healthier soils and food for communities across the United States.



**Justin West**

Co-founder & CEO

---

**6.2 acres**

Regenerated

---

**170 tonnes**

CO<sub>2</sub>e emissions sequestered

---

**2,600,000 gallons**

Water saved

# Closed Loop Infrastructure Group

Closed Loop Infrastructure Fund

Closed Loop Beverage Fund

Closed Loop Circular Plastics Fund

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Across multiple funds, the Closed Loop Infrastructure Group provides a flexible mix of financing solutions to support a range of circular economy projects, companies, infrastructure and enabling technologies. The Group deploys catalytic capital, which seeks to accelerate and de-risk the development of high-impact projects and companies.

# Closed Loop Infrastructure Fund

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Established in 2014 and funded by the world's largest retailers, consumer goods companies and corporate foundations, we finance recycling and circular economy infrastructure.

Closed Loop Infrastructure Fund

## About Our Infrastructure Fund

**36**  
projects invested  
in to date

Including **5**  
follow-on loans

**100+**  
qualified deals  
reviewed in 2021

### WHAT IS THE CHALLENGE?

Insufficient infrastructure, outdated technologies and collection gaps that have led to hundreds of millions of tons of valuable commodity materials being discarded to disposal, rather than circulated back into products and packaging across the U.S.

### HOW ARE WE SOLVING IT?

Our Closed Loop Infrastructure Fund provides flexible capital to fund replicable, scalable and sustainable recycling and circular economy infrastructure projects across collection, sortation, processing and new technologies.

### HOW WE ALIGN WITH THE UN SUSTAINABLE DEVELOPMENT GOALS



CONTRIBUTES TO SOLUTIONS



BENEFITS STAKEHOLDERS



ACTS TO AVOID HARM



\*ABC Categorization Framework by IMP<sup>4</sup>

## Closed Loop Infrastructure Fund

## Our Investors



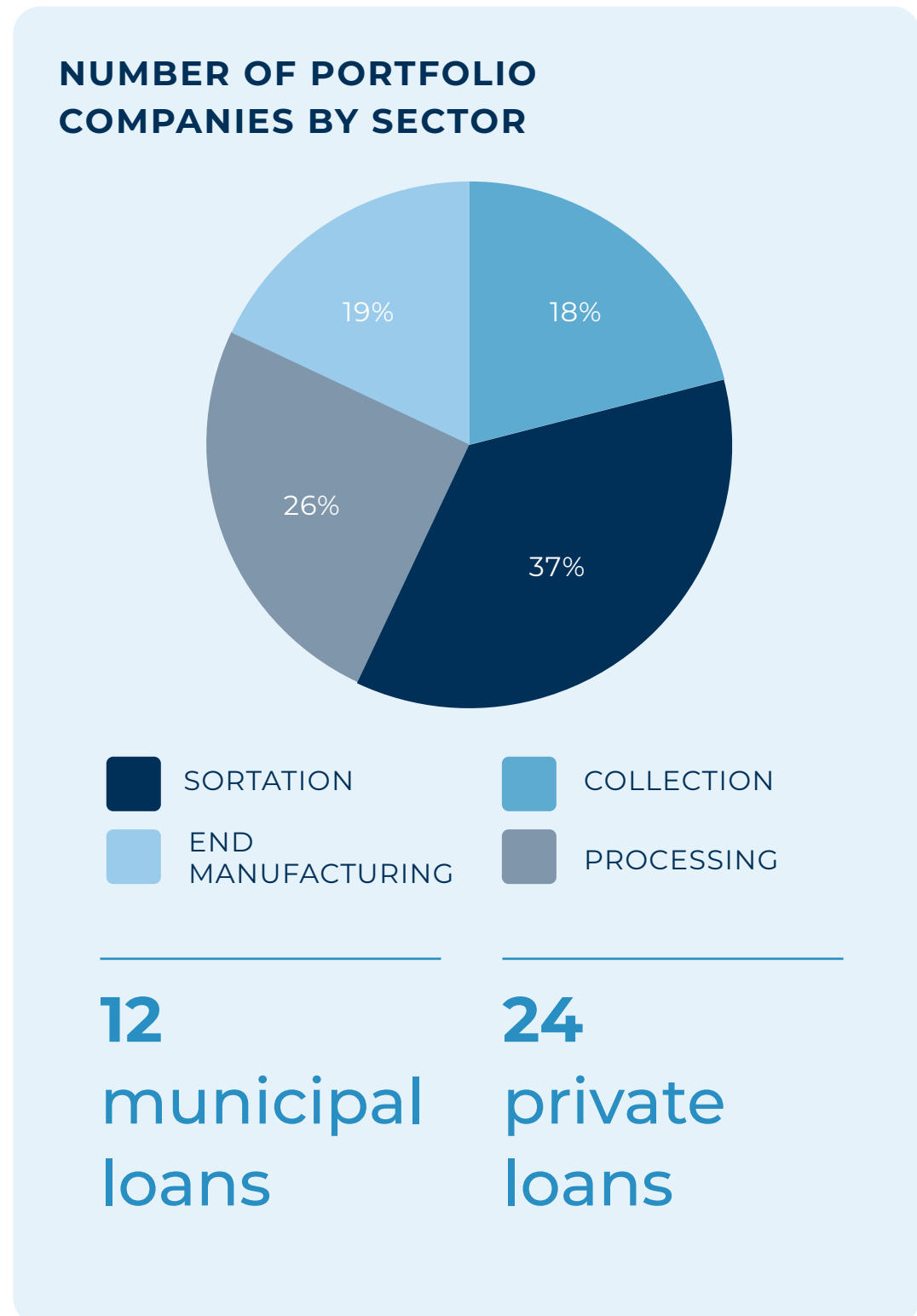
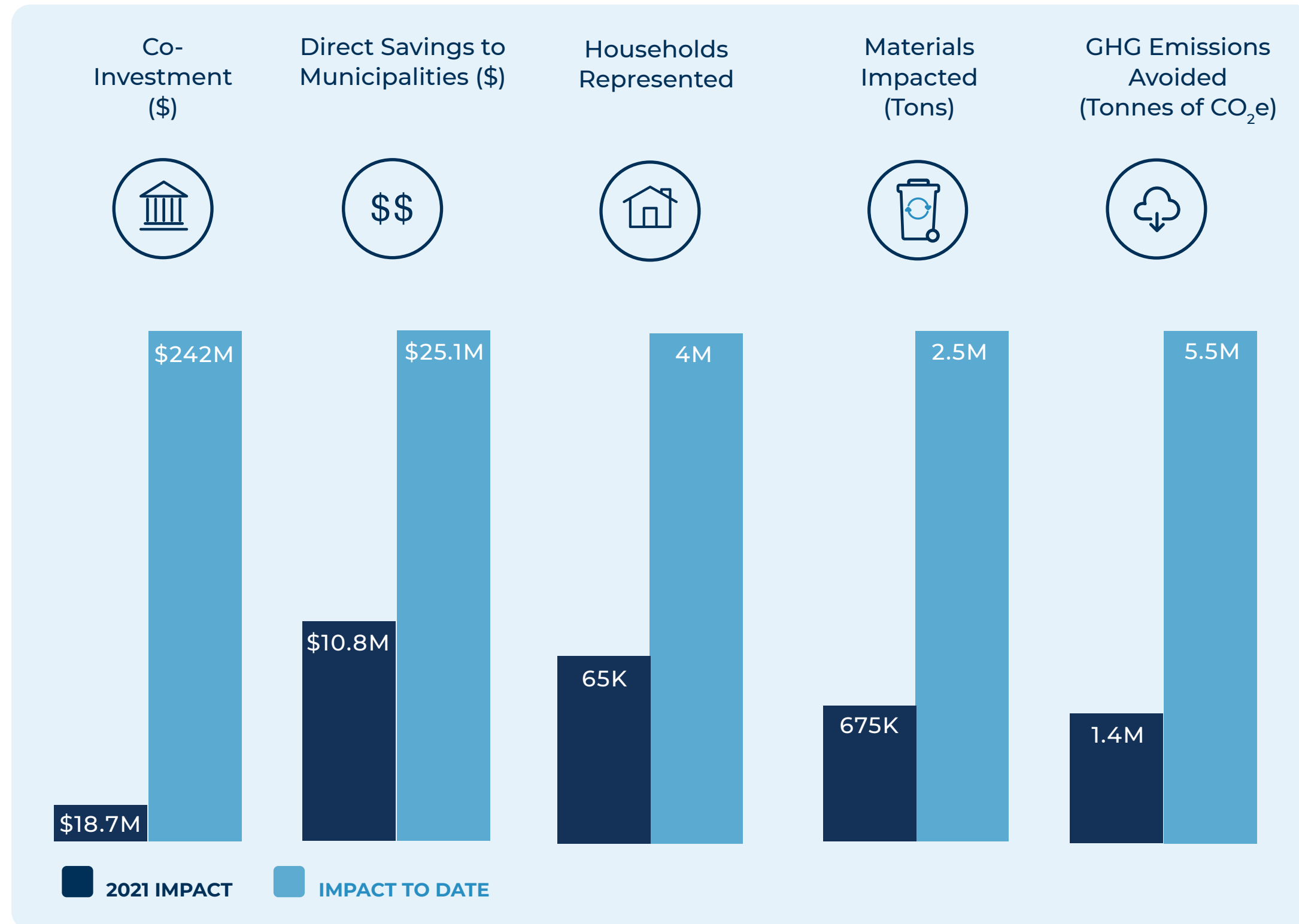
*“We know that achieving our vision of a world where packaging never becomes waste requires a significant investment in the infrastructure needed to recover and recycle packaging after it is used—ensuring it remains in the circular economy.*”

*As we continue to work toward our pep+ (PepsiCo Positive) sustainability goals, our investment in the Closed Loop Infrastructure Fund demonstrates our commitment to keeping valuable packaging materials from becoming waste. We are proud to continue our collaboration with Closed Loop Partners through the Fund, as we know partnership is essential to increasing recycling rates across the U.S.”*

– Jason Blake, CSO, PepsiCo Beverages North America

Closed Loop Infrastructure Fund

# Our Impact by the Numbers

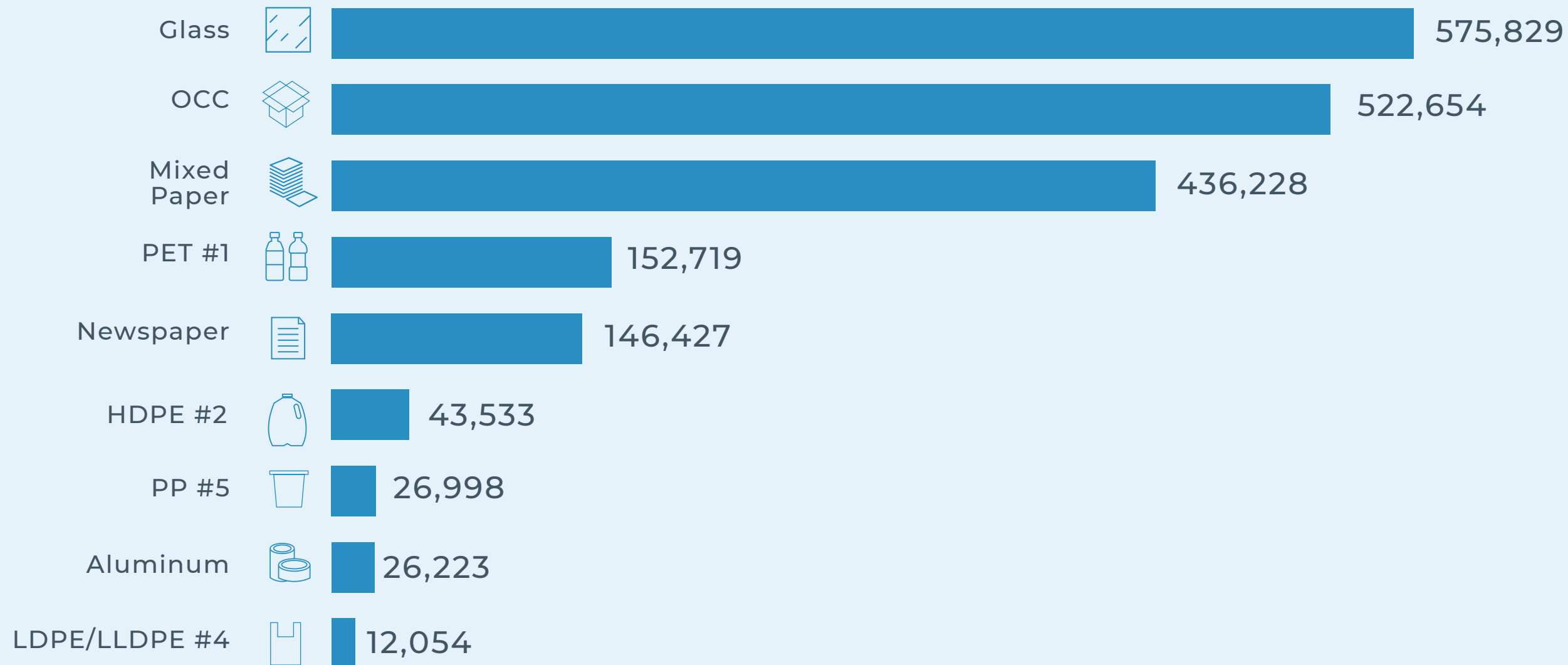


Closed Loop Infrastructure Fund

# Our Material Impact

Closed Loop Infrastructure Fund invests in recycling infrastructure to return valuable recycled materials to supply chains.

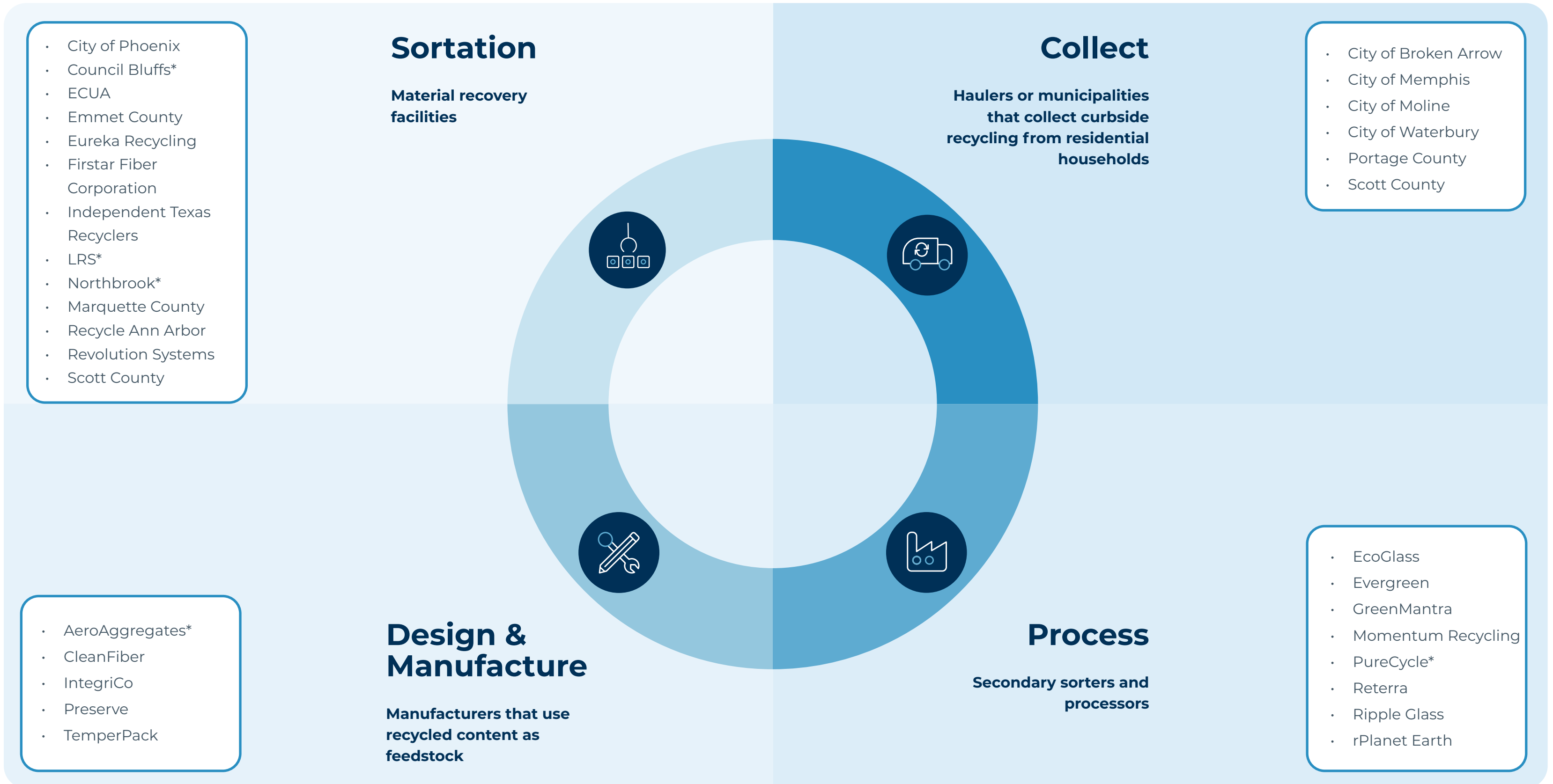
## TONS OF MATERIALS RECOVERED AND RETURNED TO SUPPLY CHAINS (CUMULATIVE TO DATE)



CLIF provides working capital and project-based finance to private companies and municipalities, creating economic value by reducing landfill expenses and increasing revenue generated from recycled commodity sales. CLIF has committed \$73M toward 36 projects, with an additional \$242M contributed by co-investors.

# Our Portfolio Companies

We invest across the entire circular value chain to strengthen the overall system, catalyze investments and scale impact outcomes.



\*Closed Loop Infrastructure Fund has exited its investment



Closed Loop Infrastructure Fund

# LRS

## *Keeping Valuable Materials in Play*

LRS, formerly known as Lakeshore Recycling Systems, is the largest privately-held recycling services company in the Midwest, United States. Operating in and around the Chicago area, where LRS's services enabled nearly all single-family homes to have access to recycling, LRS plays a critical role in providing the infrastructure needed to recover recyclable materials and keep them within manufacturing supply chains.

### **How has Closed Loop Partners supported your growth to date?**

In 2016, the Closed Loop Infrastructure Fund (CLIF) helped finance the development of a new, modern single-stream material recovery facility (MRF) inside LRS's existing transfer station in Forest View, IL. This was then complemented with a follow-on loan from CLIF in 2018, which helped add a sortation

line for residential recyclables to LRS's construction & demolition-focused MRF in Northbrook, IL. Both developments were crucial to executing on additionality of materials impacted, given that the alternative providers in the area were already operating at capacity—meaning excess material was often pushed through, potentially leading to contaminated bales, low-quality commodities, and materials missed on conveyor lines ended up in landfills. LRS's projects in Forest View and Northbrook collectively process close to 100K tons of recyclables a year, keeping valuable commodities in circulation and out of landfills.

### **What is your vision moving forward?**

The catalytic capital we received from CLIF has helped spur additional investment into our business. This has proven the case for multiple phases of our company's capitalization, and most recently in 2021, with an investment from Macquarie Infrastructure Partners. Through this validating growth investment, we have now repaid CLIF's loan in full and are well-positioned for further expansion of our top-tier, circular material solutions through both organic growth as well as opportunistic acquisitions that will strategically expand our reach and impact.

**~100,000 tons**  
Recyclables processed

**210,000 tonnes**  
CO<sub>2</sub>e emissions avoided

\*In 2021, LRS fully paid off its loan from Closed Loop Partners, thus exiting the Closed Loop Infrastructure Fund's portfolio as a borrower. The Closed Loop Partners team, however, continues engaging with the LRS team as they continue growing their operations.

Closed Loop Infrastructure Fund

# Ripple Glass

*Bringing Glass Back into Circulation*

Ripple Glass, a glass recycling company, was born out of a Kansas City brewery's goal to keep glass out of landfills, and in circulation. Since its founding, the company constructed a state-of-the-art processing plant and continues to place large glass recycling roll off containers throughout metro areas to collect glass and turn it into new products.

## What are your milestones from 2021?

Through Closed Loop Partners' loan, we upgraded our optical sortation equipment to increase the efficiency of glass processing and reduce processing waste, supporting our goals of becoming as close to zero waste as possible. We also expanded our Metro program by an additional four glass recycling locations and received grant funding to support 10 additional locations with unique "art bins." While 2021 brought on challenges including increased costs associated with supply chain disruptions and

shipping and hauling, our commercial collection business rebounded, expanding 50% over the start of the year and now collecting over a thousand tons of glass from businesses, restaurants and apartment complexes annually. To date, we have seen a 10% increase in glass collection.

## What is your vision moving forward?

Today, we have collection sites across 10 U.S. states, helping hundreds of communities keep glass out of their landfills. Moving forward, we aim to expand glass collection and recycling access, and upgrade our processing capacity. In early 2022, as part of our work to support the local food and culture community, we will expand our bar and restaurant program, supporting sustainable business practices through glass recycling and waste diversion. We look forward to continuing our work with cities, counties and businesses across the Midwest, establishing and expanding critical glass recycling programs.

**42,000 tons**

Glass processed and diverted from landfill

**11,000 tonnes**

CO<sub>2</sub>e emissions avoided

Closed Loop Infrastructure Fund

# rPlanet Earth

*Extending the Lifecycle of PET*

rPlanet Earth is the world's first completely vertically integrated manufacturer of recycled PET packaging and other products. The company sorts, flakes and molds recycled PET into innovative food-grade packaging formats, such as new containers and sheet.

### What are your milestones from 2021?

Over the last year, we recycled over 60 million pounds of post-consumer baled PET for use in our finished products, including drinking cups, square deli containers and salad containers, clean washed PET flake and bottle preforms. We are proud to share that due to process efficiencies, the greenhouse gas emissions associated with the manufacturing of our products is among the lowest in the world. Closed Loop Partners' loan helped finance the purchase of quality control and quality assurance equipment, critical especially for manufacturing food-grade packaging and products.

### What is your vision moving forward?

With market demand high, we are well positioned for growth, and will continue to expand our team. Our next steps are to double production capacity in our existing plant in Vernon, CA. Furthermore, we plan to build three or more plants in high population density regions across the U.S., to provide our customers with a coast-to-coast network of consistent, high-quality rPET products.

**30,000 tons**  
PET processed and diverted from  
landfill

**95,000 tonnes**  
CO<sub>2</sub>e emissions avoided

Closed Loop Infrastructure Fund

# Scott County

## Strengthening Community Recycling Systems

The Waste Commission of Scott County, a solid waste district in Eastern Iowa, continues to advance recycling rates for the city.

### What are your milestones from 2021?

In 2021, we made significant adjustments to our operations and business to meet the challenges of the pandemic, implementing new policies to strengthen our employee base and adapt to market fluctuations. During this market turnaround, the cart loan from Closed Loop Partners played a critical role in helping the County maintain steady product pricing. This helped keep operations running, until this was later bolstered by the recycling market's recovery, as the value of a ton of single stream recycled materials increased by almost 85% from January to November 2021. The loan that helped fund the optical sorters also supported by increasing

the recovery of PET and 3D fiber, and improving the quality of PET and other commodities.

### What is your vision moving forward?

We will continue to strengthen and grow our team, and explore advancements in our operations. The Commission is currently evaluating equipment optimization to determine the need for additional technology, such as optical sorters or robotics, to continue improving the recovery of materials and support the work of our staff.

**40,000 tons**  
Recyclables processed

**95,000 tonnes**  
CO<sub>2</sub>e emissions avoided

# Closed Loop Beverage Fund

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In partnership with the American Beverage Association, we seek to improve the collection of the beverage industry's valuable plastic bottles so they can be made into new bottles.

Closed Loop Beverage Fund

# About Our Beverage Fund

**\$50 million** fund focused on building circular economy infrastructure for the beverage industry

**23 million** Americans in **9 million households** will be directly impacted in key regions of the country through this Fund's infrastructure investments

The Fund is targeting impacts to **300+ million** pounds of PET bottles that will be recycled rather than landfilled over the 10-year fund period, equivalent to approximately **10 billion** PET bottles

### WHAT IS THE CHALLENGE?

In North America alone, around only 31%<sup>5</sup> of plastic bottles are recovered and pulled back into manufacturing supply chains. This not only contributes to the growing amount of plastic waste, but also means that there is not enough recycled PET available to be manufactured into new bottles.

### HOW ARE WE SOLVING IT?

In partnership with the American Beverage Association, our Closed Loop Beverage Fund seeks to improve the collection of the industry's valuable plastic bottles so they can be made into new bottles through investments in recycling and circular economy infrastructure in the United States.

### HOW WE ALIGN WITH THE UN SUSTAINABLE DEVELOPMENT GOALS



CONTRIBUTES TO SOLUTIONS



BENEFITS STAKEHOLDERS



ACTS TO AVOID HARM



\*ABC Categorization Framework by IMP<sup>4</sup>

Closed Loop Beverage Fund

## Our Impact and Partners

### INVESTORS INCLUDE



*“In the U.S., we’re struggling to find a balance between collecting our most common plastic—PET, and making sure it is actually recycled. If we’re going to achieve a future with no plastic in nature now is the time to advance our recycling infrastructure to ensure PET is collected, pulled back into supply chains and remade into new bottles and other plastic products.”*

### PARTNERS



*The Closed Loop Beverage Fund is making the kind of investments needed to help keep valuable plastics in circulation, and make sure they are never wasted.”*

– Erin Simon, Head, Plastic Waste + Business, World Wildlife Fund

Closed Loop Beverage Fund

# Evergreen

*Keeping Valuable Materials In Play*

Evergreen, a portfolio company of the Closed Loop Infrastructure Fund and Closed Loop Beverage Fund, is a leading plastics reclaimer and rPET manufacturing facility.

### What are your milestones from 2021?

In 2021, we launched a project to double our food-grade recycled PET (rPET) capacity to 80 million pounds per year, harnessing the latest recycling technology. The \$22 million project will include the installation of new equipment and technology, and expansion of the 238,000-square-foot building by 54,000 square feet, providing additional space for pelletizing. Our growth trajectory is now further supported by Closed Loop Partners' investment, which helped us increase capacity for clear food-grade pellets and meet the growing demand for rPET.

### What is your vision moving forward?

Growth continues to be a priority for the company. We have been serving the PET recycling space for over 20 years, producing food-grade resin for the bottle industry, and are seeing increasing demand for our services. We will collaborate closely with partners, including Closed Loop Partners, MRFs and other suppliers, to increase collection and to ensure consistent supply of materials.

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**40,000+ tons**

Clear food-grade rPET pellets manufactured

---

**100,000+ tonnes**

CO<sub>2</sub>e emissions avoided



# Closed Loop Circular Plastics Fund

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We invest in scalable recycling technologies, equipment upgrades and infrastructure solutions that advance the recovery and recycling of polyethylene and polypropylene plastics in the U.S. and Canada.

Closed Loop Circular Plastics Fund

## About Our Circular Plastics Fund

**Target \$100 million** fund focused on building more circular systems for polyethylene and polypropylene plastics

THE CLOSED LOOP CIRCULAR PLASTICS FUND IS DESIGNED WITH SPECIFIED IMPACT HURDLES. FUND LIFE TARGETS:

**500 million pounds** of plastics kept in circulation

**575 million pounds of CO<sub>2</sub>e** emissions avoided

Please contact us to learn more about this impact-first investment strategy and carry incentive structure.

### WHAT IS THE CHALLENGE?

Millions of tons of polyethylene (PE) and polypropylene (PP) are combusted, landfilled or escape into the environment annually. With a lack of recycling infrastructure for these resins in the U.S. and Canada, the current supply of recycled PE and PP hardly meets the growing demand for these industrially-important resins in the U.S. and Canada.

### HOW ARE WE SOLVING IT?

Our Closed Loop Circular Plastics Fund is an impact-first strategy, deploying catalytic financing into sustainable technologies, organizations and projects to advance the recovery and recycling of plastics in the U.S. and Canada.

### HOW WE ALIGN WITH THE UN SUSTAINABLE DEVELOPMENT GOALS



CONTRIBUTES TO SOLUTIONS



BENEFITS STAKEHOLDERS



ACTS TO AVOID HARM



\*ABC Categorization Framework by IMP<sup>4</sup>

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Closed Loop Circular Plastics Fund

## Our Impact and Partners

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**\$13 billion**  
pipeline in  
enterprise value

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**90+**  
companies in the  
pipeline representing  
solutions for millions  
of pounds of  
materials annually

*“Plastic is extremely valuable in today’s global economy—it is lightweight, helps transport food and medicine around the world, and has a range of product and packaging applications. This value can be more fully realized with improved recycling infrastructure and the know-how to enable effective and reliable recapturing of these useful plastic materials.*

*We need to deploy catalytic capital to advance infrastructure and technologies that keep plastics in circulation, and we need all stakeholders involved. As an investor in the Closed Loop Circular Plastics Fund, we are proud to collaborate with other leading material science companies to scale solutions and accelerate our progress toward a circular plastics economy.*

– Palmer Giddings, Vice President/GM Polyolefins Americas, LyondellBasell

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### INVESTORS INCLUDE



# Closed Loop Leadership Fund

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We acquire and build circular economy platforms across recycling infrastructure, plastics & packaging, food & agriculture, electronics and logistics to scale vertically-integrated circular supply chains.

Closed Loop Leadership Fund

# About Our Leadership Fund

**\$135M**  
capital committed

**5**  
deals to date

**\$500M+**  
investable pipeline

### WHAT IS THE CHALLENGE?

Driven by changing consumer preferences and shifting policy, a growing number of global consumer goods brands are committing to use more post-consumer recycled content to meet their sustainability goals. However, current supplies of recycled materials do not match the growing corporate and consumer demand for high-quality recycled content.

### HOW ARE WE ADVANCING OUR GOAL?

The Closed Loop Leadership Fund invests in companies along the value chain to build circular supply chains, with investments spanning the sectors of recycling infrastructure, plastics & packaging, logistics, electronics, and food & agriculture.

### HOW WE ALIGN WITH THE UN SUSTAINABLE DEVELOPMENT GOALS



CONTRIBUTES TO SOLUTIONS



BENEFITS STAKEHOLDERS



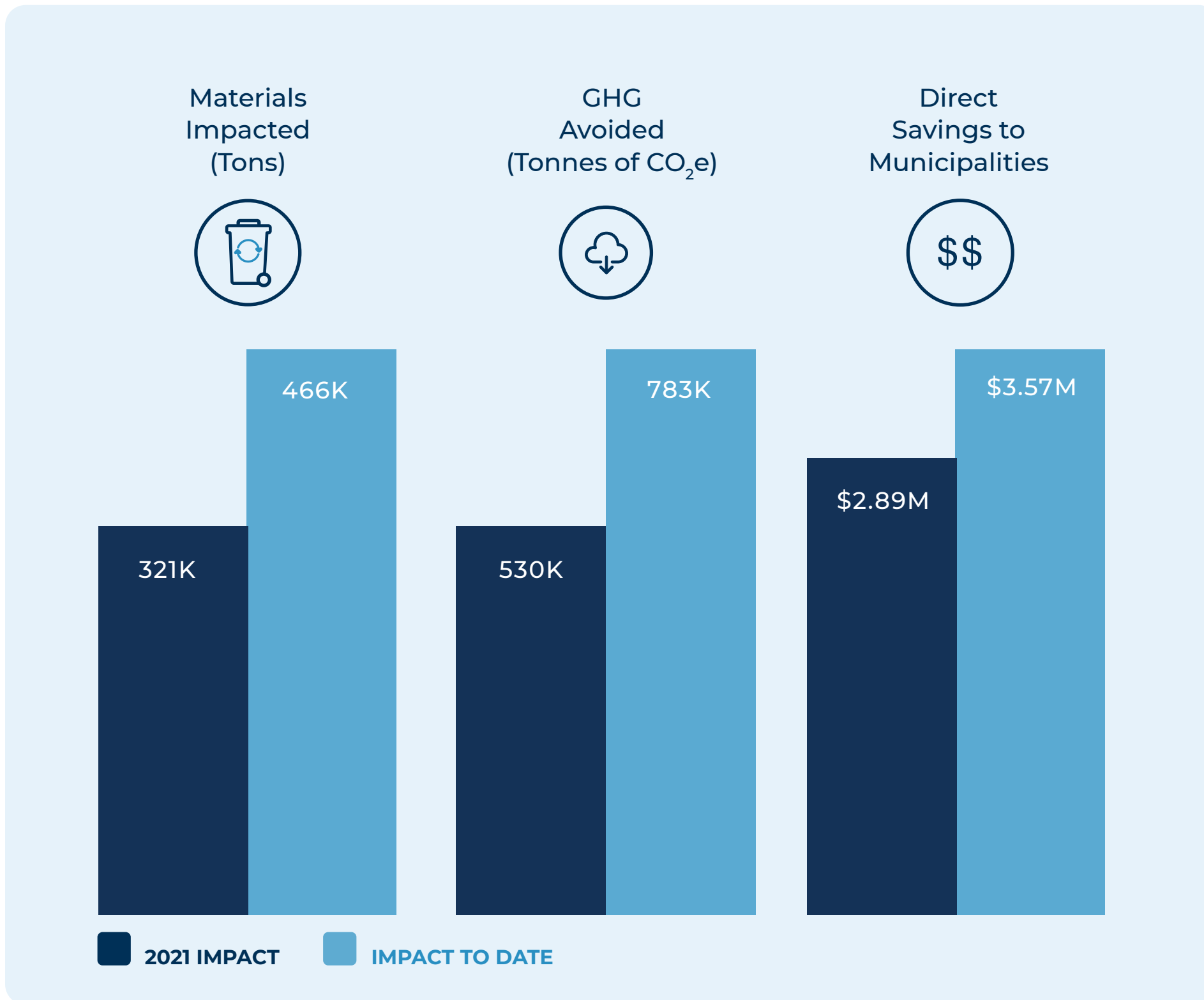
ACTS TO AVOID HARM



\*ABC Categorization Framework by IMP

Closed Loop Leadership Fund

# Our Impact by the Numbers



**30%** lower incident rate compared to industry average<sup>6\*</sup>

**33%** employees are people of color and female\*

\*Note: Impact data applies only to majority-owned companies

Closed Loop Leadership Fund

# Electronic Recyclers International

Founded in 2002, ERI's status as the leading pioneer of the e-waste recycling and hardware data destruction industries has led to year-over-year growth. Today, ERI is the largest fully integrated IT and electronics asset disposition provider and cybersecurity-focused hardware destruction company in the United States.

## What are your milestones from 2021?

In 2021, ERI kept 14.1 million pounds of glass, 1.6 million pounds of batteries, 50.4 million pounds of metals and 26 million pounds of plastics out of landfills and into the circular economy. In June 2021, we joined Closed Loop Partners' portfolio, and

welcomed the firm's founder & CEO, Ron Gonen, to our board. Also in 2021, we established a strategic partnership with Redwood Materials, a strategic investor in ERI that now receives all our batteries and solar shred materials for responsible recycling. Redwood's founder, and Tesla co-founder, JB Straubel also joined our board. Materials once considered impossible to recycle are now a part of ERI's suite of day-to-day service, thanks to yet another radically transparent partnership.

## What is your vision moving forward?

Our future plans are to continue to profitably expand our geographic footprint, with more locations in 2022 and 2023. We will also continue to grow and apply our innovative proprietary Optech tracking system and robotics at all our facilities. We will focus on helping customer brands achieve their ESG and circular economy goals, including assisting them in meeting net zero emissions, net zero waste and zero landfill objectives.

**58,000 tons**  
Material recycled

**345,000+ tonnes**  
CO<sub>2</sub>e emissions avoided

Closed Loop Leadership Fund

# Balcones Resources

Founded in 1994, Balcones is the largest independent recycling facility in the Southwest U.S. Focused on technology, innovation and material quality, they derive their profits exclusively from recycling.

## What are your milestones from 2021?

In 2021, we entered into a long-term agreement with Central Texas Refuse, LLC (CTR), a subsidiary of Integrated Waste Solutions Group, LLC (IWSG), to operate their recycling facility, located in Taylor, Texas. CTR will continue to collect, haul and deliver residential, commercial municipal and other recyclables in the Central Texas area to the Balcones facilities. With this partnership, Balcones can continue to expand our recycling presence in the Austin region, and strengthen the supply chains available for recyclable materials.

## What is your vision moving forward?

We are focused on continuing to grow our business and finding innovative opportunities to increase the value we deliver to our communities. We have added key team members this year, setting the stage to have a strong, energetic and intentional group of leaders, positioning us to follow through on exciting opportunities in Texas, and a few other possibilities in the southwest and southeast regions of the country.

**320,000 tons**  
Materials recycled

**530,000+ tonnes**  
CO<sub>2</sub>e emissions avoided



# Innovation

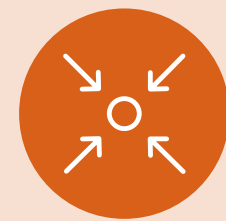
As investment flows into circular systems, opportunities for innovation continue to grow. This creativity will shape the future of how consumers shop and how cities function, creating massive shifts that will advance consumer and brand value.

# The Center for the Circular Economy

We take a holistic, end-to-end approach to innovating, testing and scaling the circular solutions of the future.

Our expertise spans the full lifecycle of a product, connecting upstream innovation to downstream recovery infrastructure and end markets. We work across brands, sectors and industries to create the systems change necessary for the advancement of the circular economy.

## HOW THE CENTER ADVANCES THE CIRCULAR ECONOMY



### Innovate

Source, identify and nurture leading circular solutions



### Test

Help refine and hone solutions through holistic testing and piloting



### Scale

Link innovation to the global supply chain

## Collaborations



Collaboration is at the core of the circular economy. Transforming long-standing linear business models and production systems requires the participation of the value chain from end-to-end. The Center for the Circular Economy creates a platform for collaboration, bringing together many of the world's leading retailers along with key stakeholders, including designers, brands, manufacturers, trade associations, retailers, NGOs and activists, municipalities, recovery facilities, materials processors and end markets.

### What does collaboration make possible?

- **Reframes the issue** beyond short-term fixes to long-lasting, systemic solutions by acknowledging the need for collective action
- **Accelerates progress** by increasing efficiencies through shared resources and insights
- **Sends a unified signal** to the market, generating efficiencies of scale and standardization that incentivize manufacturers, recovery infrastructure and technology to adopt more sustainable practices
- **Demonstrates the high level of commitment** and ambition needed to truly move the needle on global challenges, setting a positive precedent

# The NextGen Consortium



The NextGen Consortium is a multi-year, global consortium that aims to address single-use foodservice packaging waste by advancing the design, commercialization and recovery of packaging alternatives. The Consortium works across the value chain—with brands, municipalities, material recovery facilities and manufacturers—to ensure we provide viable market solutions that scale throughout the supply chain and bring value to recovery systems. First on the list: the fiber cup.

### OPPORTUNITY FOR IMPACT

Globally, more than 250 billion fiber cups are produced each year. While many cups are potentially recyclable, in practice the vast majority end up in landfill, wasting valuable resources. The NextGen Consortium is working to redesign the fiber cup so that it's widely recyclable, compostable and/or reusable.

MANAGING PARTNER



FOUNDING PARTNERS



SECTOR LEAD PARTNER



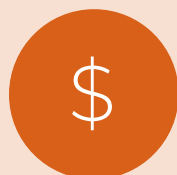
SUPPORTING PARTNERS



ADVISORY PARTNER



# NextGen Cup by the Numbers



**\$10M+**

Additional commitment from the NextGen Consortium's Founding Partners, Starbucks and McDonald's, to continue the Consortium's work beyond its initial three years



**New Sector Lead Partner**

The Coca-Cola Company increased its commitment to now participate as a Sector Lead Partner



**25+ recycling tests**

and pilots conducted to date with value chain stakeholders and best-in-class labs



**12**

winning sustainable cup solutions sourced, and more than 20 advanced cup solutions diligenced to date

**19**

in-market pilots for reusable and single use cup solutions to date



**3 new partnerships**

NextGen Consortium joins and influences: The Polypropylene Recycling Coalition, 4evergreen Alliance, PR3



**1 Seminal Reuse Report**

"Bringing Reusable Packaging Systems to Life" published

\*Information on this page represents cumulative impact to date

## What We Learned About Reuse

Drawing on insights from the NextGen Consortium's reusable cup pilots, we published an open source resource, [Bringing Reusable Packaging Systems to Life](#). The report encourages collaboration and the growth of reuse models.

### Critical Inputs & Considerations for Scaling Reuse:

- Collaborate With Diverse Stakeholders
- Make Sustainable Material Choices
- Select the Perfect Location
- Choose the Right Payment Model
- Optimize Health & Safety Protocols
- Measure Impact and Success



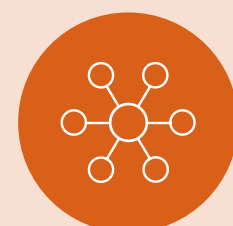
### REUSE MODELS MUST...



Have a positive environmental impact



Provide a seamless, convenient experience for companies and customers



Be inclusive and accessible



Be safe and hygienic at every step of the process

## Consortium to Reinvent the Retail Bag



The Consortium to Reinvent the Retail Bag is a multi-year collaboration across retail sectors that aims to identify, test and implement viable design solutions and models that more sustainably serve the purpose of the current retail bag.

### OPPORTUNITY FOR IMPACT

The short use (12 minutes, on average) and long lifespan of the plastic bag have led to rising concerns. Single-use plastic bags are among the top 10 items found on beaches and waterways, and it's estimated that we use 100 billion plastic bags per year in the U.S., contributing to a global waste challenge.



# Beyond the Bag by the Numbers



**\$16M+**  
initiative



**14**  
retailers  
representing  
over 50,000  
stores



**450+**  
sustainable bag solutions  
sourced by the Beyond the  
Bag Challenge

The Consortium to Reinvent  
the Retail Bag rings the NYSE  
Closing Bell



**9**

Beyond the Bag  
Challenge Winners  
announced across 3  
categories:

- Reusable Bag Systems
- Enabling Technologies
- Innovative Materials

Continued value chain  
engagement, including  
on policy, infrastructure  
and customer insights

**6**

solutions tested across a  
total of nine stores of the  
Consortium's Founding  
Partners—CVS Health,  
Target and Walmart



\*Information on this page represents cumulative impact to date

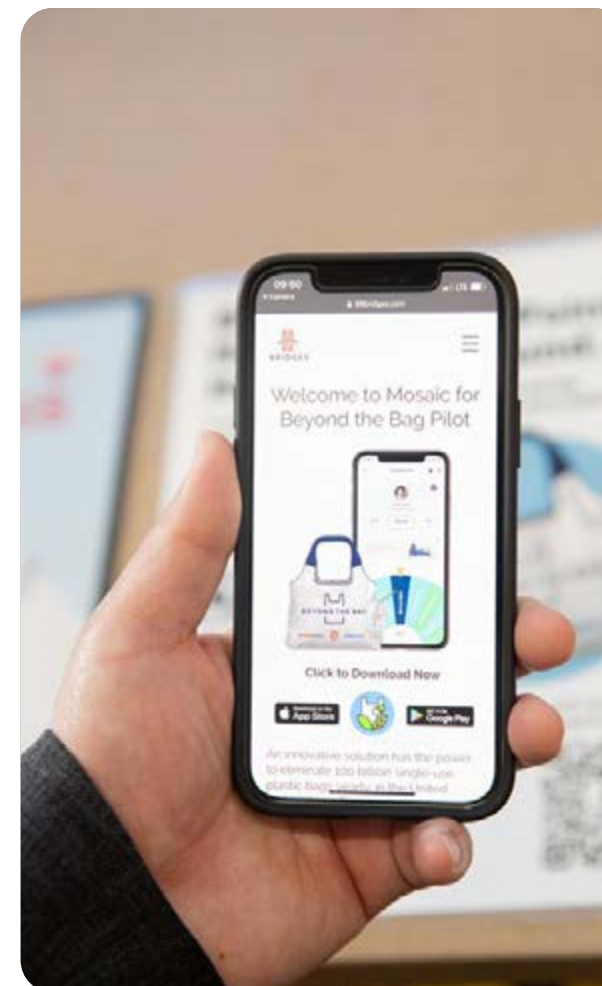


## Beyond the Bag Pilots

The Consortium to Reinvent the Retail Bag, with Founding Partners CVS Health, Target & Walmart, reached a significant milestone in August 2021, a year after its founding: the launch of a series of tests and first-of-a-kind multi-retailer pilots to advance sustainable alternatives to the single-use plastic bag and accelerate their potential to scale.

These pilots aimed to increase our collective understanding of the existing enablers and barriers to individual sustainable bag solutions, to advance systemic, industry-wide change. Through these live pilots, we evaluated multiple factors, from technical feasibility to customer engagement, across pilot locations.

Building a more sustainable future for the retail industry won't happen overnight. These pilots were a critical step to further refine innovative solutions that can help address



## Research & Analysis



### Design and Material Innovation

To avoid replacing one problem with another in the transition from where we are today and where we need to go, we must assess any new material's impact on human health and the environment.

We are examining the role of design and material innovation to advance the recyclability, compostability and recoverability of packaging.

### Reuse & Refill

Amidst the urgency of the climate crisis, pressure from environmentally conscious consumers and evolving regulatory pressures in the U.S., the business case for resource efficiency is increasingly clear. Reuse and refill models offer a clear path forward.

We are testing, piloting and investing in reusable packaging models to accelerate their pathway to scale. We see reuse and refill as critical to address the mounting single-use plastics waste challenge, reduce the need for virgin plastic extraction and keep valuable materials in play.

### Materials Recovery

There is a misalignment between the amounts and kinds of materials produced today and the infrastructure available to recover, process and return them to supply chains after use.

We work to strengthen and grow the infrastructure necessary to collect, recover, re-manufacture and resell materials after their initial use. This includes optimizing mechanical recycling systems, alongside newer molecular recycling technologies and composting infrastructure.

**Mechanical  
Recycling**

**Molecular  
Recycling**

**Composting**

## RESEARCH AND ANALYSIS SPOTLIGHT

# Assessing Molecular Recycling Technologies in the U.S. and Canada

The sheer diversity and volume of plastics in our system today, from textiles to packaging to electronics, means that no single sector, technology or approach can solve the plastics waste challenge entirely or quickly enough. Plastics production is set to triple by 2050; to move the needle on the 9% of plastics currently recycled globally, a suite of solutions must be deployed, first emphasizing reduction and reuse, and also acknowledging the role of recycling in keeping valuable plastics in play for longer and reducing the need for fossil fuel extraction.

In 2021 Closed Loop Partners' Center for the Circular Economy released its latest report on molecular recycling, [\*Transitioning to a Circular System for Plastics: Assessing Molecular Recycling Technologies in the United States and Canada\*](#), examining the potential role of molecular recycling technologies in a circular and safe future for plastics, and the policy, market, and environmental and human health impact conditions needed to achieve this optimal future state.



# Team

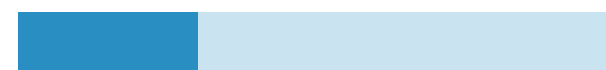
# Closed Loop Partners Team

Since Closed Loop Partners' founding in 2014, our ethos has been to embody an inclusive culture within our firm, attracting smart, dedicated and mission-driven team members. We continue to evolve our policies, procedures and efforts regarding diversity, equity and inclusion (DEI) at the firm, as we work toward being an industry leader in business culture and as investors. In 2021, we formally established our employee-led DEI committee with a specified mandate to focus on strengthening an action-oriented approach, further developing our short-term, medium-term and long-term goals. From hiring practices, to educational resources, to investment practices, among many other things, we will continue to work to advance inclusive diversity at the firm, at our portfolio companies and in the communities we service. Most importantly, we expect any statements we make to be accompanied with actions and results.

74%  
identify as female



22%  
people of color\*



\*Defined as a person who is not white

## CLOSED LOOP PARTNERS PERSONALITIES



**Erik Avni**  
*on HomeBiogas*

My kids love to put their food waste into the machine every night HomeBiogas makes for great conversation when I have guests over, as everyone wants to try it and see how it works.



**Julia Viner**  
*on Thrilling*

I am on the hunt for vintage one-of-a-kind and sustainable products, and proud to shop Thrilling.



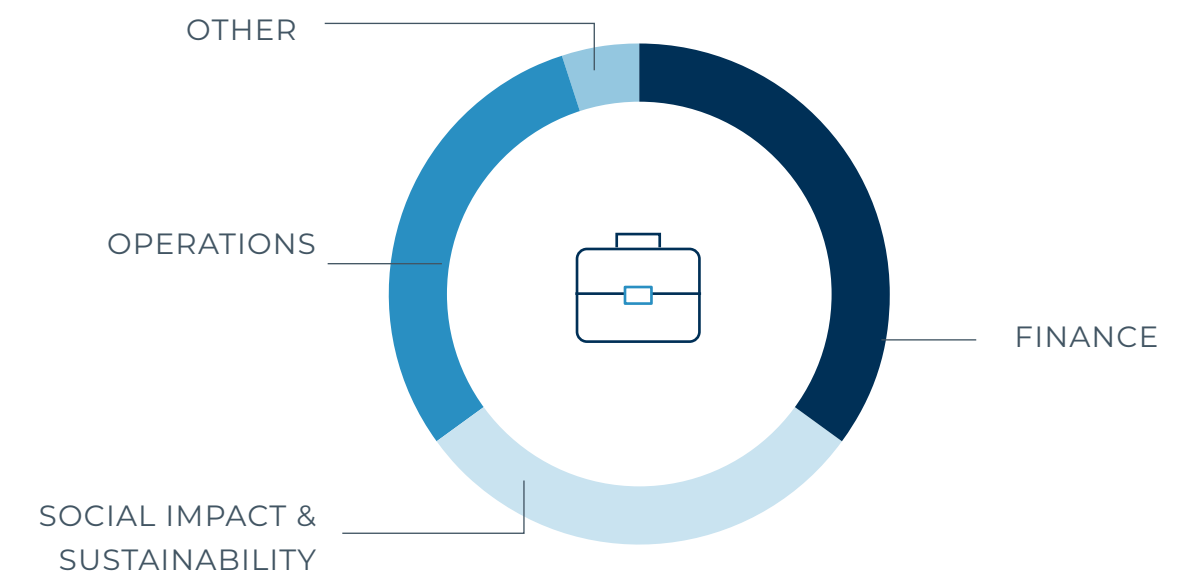
**Alicia Mandelkow**  
*on The Renewal Workshop*

I love keeping perfectly good clothing from ending up incinerated or landfilled! To continue enjoying winter sports in the Northern Hemisphere, it's important we all take action!




14  
Languages Spoken





## WORK EXPERIENCE PRIOR TO JOINING CLOSED LOOP



# Closed Loop Partners Team

 <b>Ron Gonen</b> CEO	 <b>Martin Aares</b> Managing Director	 <b>Caroline Brown</b> Managing Director	 <b>Bridget Croke</b> Managing Director	 <b>Kate Daly</b> Managing Director, Center for the Circular Economy	 <b>Michael Gajewski</b> CFO & Managing Director	 <b>Danielle Joseph</b> Managing Director	 <b>Karine Khatcherian</b> Managing Director	 <b>Alicia Mandelkow</b> Chief of Staff	 <b>Jessica Long</b> Chief Strategy Officer & Managing Director	 <b>Bob Milligan</b> Managing Director	 <b>Maite Quinn</b> Managing Director	 <b>Boaz Schweiger</b> Managing Director	 <b>Tazia Smith</b> COO & Managing Director
 <b>Jennifer Louie</b> Executive Director	 <b>Jon Powell</b> Executive Director	 <b>Allison Shapiro</b> Executive Director	 <b>Turab Bajwa</b> Director	 <b>Kate Krebs</b> Director, External Affairs	 <b>Luba Shabal</b> Director, Impact Due Diligence	 <b>Anne Marie Kaluz</b> Senior Associate	 <b>Jackson Pei</b> Senior Associate	 <b>Lynn Bernabei</b> Senior Associate	 <b>Hannah Friedman</b> Associate	 <b>Hannah Piester</b> Associate	 <b>Julia Viner</b> Associate		
 <b>Erik Avni</b> CCO & Controller	 <b>Bob Anderson</b> Vice President	 <b>Denise Diorio McVeigh</b> Vice President	 <b>Stephen Klemann</b> Director of Sales	 <b>Georgia Sherwin</b> Senior Director, Strategic Initiatives & Partnerships	 <b>Bea Miñana</b> Communications Associate	 <b>Dan Liswood</b> Senior Project Director	 <b>Madeleine Smith</b> Program Manager	 <b>Paula Luu</b> Senior Project Director	 <b>Matt Pundmann</b> Senior Project Director	 <b>Anh Giang</b> Project Innovation Director	 <b>Sarah Gross</b> Project Director	 <b>Tim Wackenreuter</b> Deputy Controller	 <b>Lauren Burgos</b> Office Manager

## CLOSED LOOP PARTNERS ADVISORS

 <b>Mark Cirilli</b> Closed Loop Infrastructure Fund	 <b>Yuly Fuentes-Medel Ph.D.</b> Closed Loop Growth Equity	 <b>Brett Jenks</b> Closed Loop Infrastructure Fund	 <b>Fred P. Keller</b> Closed Loop Infrastructure Fund	 <b>Andrew McColm</b> Closed Loop Venture Partner	 <b>René Paula</b> Closed Loop Venture Partner	 <b>Carrie Ellen Phillips</b> Closed Loop Growth Equity	 <b>Dr. Thomas Tochtermann</b> Closed Loop Fashion Sector	 <b>Bruce Usher</b> Closed Loop Infrastructure Fund
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# Appendix

## Closed Loop Ventures Group Portfolio

INVESTMENT	LOCATION	MATERIAL	SUMMARY	POTENTIAL FOR IMPACT
Algaeing	Israel	Fashion	Algaeing has developed a technology for converting micro-algae to textile fibers and dyes using proprietary blends and strategic feedstock sources.	<ul style="list-style-type: none"> <li>Reduces dependence on plastic fibers and toxic dyes for textiles by providing solutions produced from a renewable resource, micro-algae.</li> </ul>
Algramo	Chile	Plastics and Packaging	Algramo builds a “smart dispensing system” for CPG products that incentivizes the reuse of packaging, and provides an economic benefit to buyers (able to buy small quantities of products at bulk prices), retailers, and brand owners.	<ul style="list-style-type: none"> <li>Reduces single-use and unrecyclable CPG packaging and offers high quality products at an economic value accessible to populations regardless of socioeconomic status.</li> </ul>
Algramo US	NY	Plastics and Packaging	Algramo launched Algramo US, marking their expansion into North America. The company recently launched pilots in New York City to test their smart dispensing system in select locations across Manhattan and Brooklyn, meeting the growing demand for convenient, accessible and waste-free solutions .	
AMP Robotics	CO	Technology	AMP Robotics uses state-of-the-art computer vision and robotics that rapidly identifies and recovers material from the waste stream.	<ul style="list-style-type: none"> <li>Improves the quantity and quality of recycled commodities recovered from co-mingled waste streams.</li> </ul>
Ansa (formerly Griin)	Israel	Food and Agriculture	Ansa has a distributed coffee roasting technology that can bring green coffee beans directly to the forefront of the trade and into the hands of the consumer.	<ul style="list-style-type: none"> <li>Eliminates unnecessary transportation, packaging and advances on-demand, zero-pollution roasting.</li> </ul>
Atlas Organics*	SC	Food and Agriculture	Atlas Organics recycles organic waste streams by partnering with municipalities to collect & process organic waste, and sell finished compost.	<ul style="list-style-type: none"> <li>Diverts food waste from landfill and turns it into a valuable soil amendment. Increases the accessibility of composting.</li> </ul>
CoLoadX	NY	Technology	CoLoadX is an e-commerce platform for partial container ocean freight. CoLoadX improves both operations and user experience.	<ul style="list-style-type: none"> <li>Reduces waste in the global supply chain by making international logistics simpler and more efficient.</li> </ul>
DAI	United Kingdom	Fashion	DAI creates performance wear for women, committed to sustainability, circular economy and social impact that empowers women.	<ul style="list-style-type: none"> <li>Demonstrate a fully circular business model without compromising on quality and comfort.</li> </ul>
dimpora	Switzerland	Fashion	Dimpora is a chemical company that develops sustainable and non-harmful membranes, mostly aimed at the production of outdoor gear.	<ul style="list-style-type: none"> <li>Creates high-performance products that protect outdoor enthusiasts while leaving the least possible trace in nature.</li> </ul>
Easy Aerial	NY	Technology	Easy Aerial develops advanced and customized autonomous aerial monitoring solutions.	<ul style="list-style-type: none"> <li>Potential to improve the quality and efficiency of recycling operations, e.g., increasing the quality of material coming into MRFs by enhanced hauler visibility systems.</li> </ul>
Evrnu	WA	Fashion	Evrnu transforms post-consumer cotton garment waste into high quality cellulosic fiber.	<ul style="list-style-type: none"> <li>Diverts and recovers cotton fiber waste and converts it to new fibers, thereby reducing the need for virgin cotton fibers.</li> </ul>

\*Closed Loop Partners is no longer an investor or lender



**Closed Loop Ventures Group Portfolio (cont.)**

For Days	CA/NY	Fashion	For Days designs everyday basics and sells through a “swap” model that takes used products as inputs for their new ones.	<ul style="list-style-type: none"> <li>Reimagines consumption habits of basic apparel, thereby dramatically reducing the 75lbs/person/year that get disposed of in landfill.</li> </ul>
HomeBiogas	Israel	Food and Agriculture	HomeBiogas produces household-sized biogas systems that turn organic waste into a cooking fuel and fertilizer.	<ul style="list-style-type: none"> <li>Diverts food waste from landfill and increases its value as usable fuel, reduces indoor air pollution from dirty cookstoves, and offers “free” fertilizer.</li> </ul>
Linhaus*	NY	Metals, Minerals	Linhaus is a proprietary technology and design platform that delivers customizable and closed-loop jewelry with a unique customer experience.	<ul style="list-style-type: none"> <li>Avoids extractive diamond and gemstone mining by increasing demand for recycled metals and lab grown diamonds.</li> </ul>
Loliware*	NY	Food and Agriculture	Loliware is the world’s first Edible Bioplastic Company dedicated to replacing plastic with edible materials.	<ul style="list-style-type: none"> <li>Reduces the need for unrecyclable plastic straws with hyper-compostable alternatives.</li> </ul>
Mori	MA	Food and Agriculture	Mori (formerly Cambridge Crops) extends the shelf-life and freshness of food by using natural, edible and invisible coatings.	<ul style="list-style-type: none"> <li>Minimizes food waste, limits GHG emissions and water waste created by the food supply chain, and reduces the reliance on plastic packaging.</li> </ul>
Natural Machines	Spain	Food and Agriculture	Natural Machines’ 3D food printer allows users to print what they want to eat and nothing more, and recover food that is traditionally classified as food waste.	<ul style="list-style-type: none"> <li>Makes use of food scraps in commercial kitchens, diverting discarded food from landfill.</li> </ul>
Partsimony	NY	Technology	Partsimony is a SaaS network that unifies disparate data from multiple sources to more efficiently manage hardware from prototype through production, bringing superior intelligence to manufacturing supply chains.	<ul style="list-style-type: none"> <li>Helps hardware companies turn designs into products with less time, capital and frustration than ever before.</li> </ul>
Rebound Technologies	CO	Food and Agriculture	Rebound Technologies accelerates freezing processes with bursts of high capacity cooling and generates sub-zero temperatures at 40% greater efficiency than legacy systems.	<ul style="list-style-type: none"> <li>Cuts fresh food waste at logistics sites, and reduces energy consumption for freeze-point cooling.</li> </ul>
Rebundle**	MO	Fashion	Rebundle creates and sells hair extensions made from plant-based materials, aiming to remove plastics from the product and mitigate waste.	<ul style="list-style-type: none"> <li>Advance hair extension alternatives, with more comfort and less waste.</li> </ul>
The Renewal Workshop	OR	Fashion	The Renewal Workshop takes unsellable apparel and textiles and “renews” them for resale by brands.	<ul style="list-style-type: none"> <li>Diverts textiles that would otherwise be sent to landfill or incineration.</li> </ul>
Retrievr	NY	Technology	Retrievr (formerly CurbMyClutter) is a software that enables municipalities and haulers to collect and recycle used electronics and apparel.	<ul style="list-style-type: none"> <li>Diverts textiles and electronics from landfill by dedicated collection and recycling. Retrievr has the potential to collect 75lbs/person/year of textile waste.</li> </ul>
Thrilling	CA	Fashion	Thrilling is a boutique vintage clothing marketplace, leveraging the infrastructure of pre-existing “sorters”/vintage clothing store owners to accelerate the circular economy.	<ul style="list-style-type: none"> <li>Increases accessibility to vintage clothing and promotes resale of clothing, prolonging garments’ useful life and keeping them out of landfill.</li> </ul>

\*Closed Loop Partners is no longer an investor or lender  
 \*\*Recent investments outside the reporting period illustrated here to show the full expanse of portfolio

### Closed Loop Ventures Group Portfolio (cont.)

Thrive Lot	TN	Food and Agriculture	Thrive Lot is a platform for installing and maintaining edible, ecological landscaping and more, for homeowners who want yard-to-table health and impact.	· Grows organic, nutrient-rich food, creates habitats for wildlife, builds resilient soil, and rekindles connections with nature.
TradeLanes	CA	Technology	TradeLanes is a global trade execution platform that connects trade participants into a digital document chain.	· Saves exporters 30-80% on supply chain management by digitizing and automating supply chains, particularly related to recycled paper and bulk foods.
ucrop.it	Argentina	Food and Agriculture	ucrop.it is the first collaborative agriculture platform for crop traceability, connecting growers with companies to agree on sustainable crop production objectives, using blockchain technology for their traceability and the confidential cryptographic storage of the grower's information.	· Farmer-centric software gives control back to the farmer, enables the growers to obtain greater profitability and incentivizes sustainable agricultural practices.

### Closed Loop Infrastructure Fund Portfolio

INVESTMENT	LOCATION	MATERIAL	SUMMARY	IMPACT BY 2030
AeroAggregates*	PA	Glass	AeroAggregates provides ultra-lightweight fill material for infrastructure projects throughout the Mid-Atlantic region.	Provide a home for curbside recycled glass that has no other home outside of landfilling
City of Phoenix	AZ	Single stream	The City of Phoenix is working to upgrade its North Gateway materials recovery facility to enable greater diversion of plastics from landfill and to improve the quality of baled paper produced.	Recover more tons and better quality commodities out of single-stream recyclables in the City of Phoenix
CleanFiber	NY	Fiber	CleanFiber manufactures a premium cellulose insulation made from recycled feedstock, a mix of OCC and ONP.	Turn more tons of cardboard waste headed to the landfill into valuable insulation product
Council Bluffs	IA	Single stream	The Council Bluffs Recycling Center sorting facility serves 42,500 households in a rural community.	Recover more tons of post-consumer recyclables
Emerald Coast Utilities Authority	FL	Single stream	Emerald Coast Utilities Authority material recovery facility serves more than 250,000 households across Escambia County, the Florida panhandle, and eastern Alabama. ECUA's facility processes 45,000 tons of recyclables each year.	Save local municipalities nearly \$1M
Emmet County Recycling	MI	Dual stream	Emmet County Recycling desired an upgrade to its existing MRF to improve sortation of various containers.	Expand the capacity to process valuable recyclable materials and expand coverage to the communities
Eureka Recycling	MN	Single stream	Eureka Recycling is a nonprofit social enterprise based in the Twin Cities, whose mission is to demonstrate that waste is preventable, not inevitable. Eureka provides recycling collection and processing services to over 200,000 households and sorts over 90,000 tons a year.	Recover more tons of single-stream recyclables
FirstStar Recycling	NE	Single stream	FirstStar Recycling is the largest full-service recycler (hauler and MRF) in the state of Nebraska ensuring comprehensive recycling in the greater Omaha and Lincoln metro areas.	Generate millions of dollars in savings and revenues for the County

\*Closed Loop Partners has exited its position with these organizations

## Closed Loop Infrastructure Fund Portfolio (cont.)

GreenMantra	Ontario, Canada	Plastics	GreenMantra Technologies is focused on applying its upcycling catalytic technology to advance the circular economy. The first application of their technology transforms polyethylene and polypropylene into an industrial wax used in construction products. They have now reached commercial scale.	Divert valuable materials from landfills and create end markets for hard-to-recycle plastics
IntegriCo	LA	Plastics	IntegriCo Composites is a manufacturer of composite railway products including railway crossties and composite grade using 100% recycled plastics.	Return to supply chains more tons of waste plastics in the form of plastic railroad ties
ITR/Ecoglass	TX	Single stream, glass	ITR provides new collecting, sorting and processing capacity for post-consumer single stream in the Houston, TX market. At scale, the facility will handle 33,000 tons of single-stream material per year.	Improve access to convenient curbside recycling for 300,000 multifamily housing residents
LRS*	IL	Single stream	Lakeshore Recycling Systems (LRS) is Illinois' largest private waste company, specializing in recycling and waste diversion programs for Chicagoland businesses and homeowners, dumpster services and portable restroom rental.	Recover and return to supply chains more tons of single-stream recyclables in the Chicagoland region
Marquette County	MI	Single stream	Marquette County Solid Waste Management Authority is working to upgrade its existing MRF from a small dual-stream facility to a larger single-stream installation.	Recover more tons and better quality commodities out of single-stream recyclables in rural upper peninsula Michigan
City of Memphis	TN	Single stream	The City of Memphis introduced universal single-stream curbside recycling across the city in 2016. More efficient carts and trucks bring significantly more material to the area's material recovery facility.	Recover more tons of single-stream recyclables
City of Broken Arrow	OK	Single stream	The City of Broken Arrow is using the funds for recycling carts for single-stream curbside collection and recycling collection vehicle, serving 35,000 households across the city.	Collect 124 million pounds of recycled material, including over 5 million pounds of new polyethylene terephthalate (PET) and 2 million pounds of new aluminum
City of Moline	IL	Single stream	The City of Moline, IL, is expanding access to curbside recycling services and introducing new 96-gallon carts for its 19,000 households. Moline's recycling will go to nearby Scott County, Iowa's single-stream MRF (another Closed Loop Infrastructure Fund financed project).	New carts will yield a projected 40% increase in recycling volume annually
Momentum Recycling	CO	Glass	Momentum Recycling is a cullet processor and recycling services provider, with operations in Salt Lake City and Denver. The Denver facility processes over 75,000 tons of glass per year for container, fiberglass and abrasives markets.	Momentum is creating a market for both single-stream and source-separated post-consumer glass
Portage County Solid Waste Recycling District	OH	Plastics	Portage County is a rural county in Ohio SE of Cleveland with a population of 165,000 residents. With support from the Closed Loop Infrastructure Fund, the city invested in new single stream recycling carts and automated recycling trucks..	Generate savings for the city in landfill tip fees avoided
Preserve	MA	Plastics	Preserve, a certified B Corporation, makes stylish, eco-friendly products for the home, including a full line of food service cutlery, kitchen products, tableware and personal care products, using 100% recycled plastic and plant-based compostable materials.	Return to supply chains more tons of post-consumer recycled polypropylene in the form of food service cutlery
Portage County	OH	Single stream	Portage County is a rural county in Ohio SE of Cleveland with a population of 165,000 residents.	Improve their landfill diversion rates by investing in collection infrastructure

\*Closed Loop Partners has exited its position with these organizations

**Closed Loop Infrastructure Fund Portfolio (cont.)**

Preserve	MA	Plastics	Preserve manufactures everyday household goods, such as tableware, food storage containers, razors, and toothbrushes from 100% recycled plastic.	Continue manufacturing products from recycled plastics
PureCycle Technologies*	OH	Plastics	PureCycle Technologies uses a proprietary process to transform colored and contaminated polypropylene (PP) into an FDA-grade clear/natural PP pellet. At scale, the Lawrence County, OH, facility will process 50,000 tons of PP a year.	Return to supply chains more tons of post-consumer recycled polypropylene
QRS of Maryland*	MD	Mixed 3-7 Plastics	QRS of Maryland was a plastics recovery facility that sorted and processed post-consumer mixed plastics with limited markets into a washed flake.	Recovered and returned to supply chains more than 36,000 tons of mixed 3-7 plastics in its first two years of operations
Ripple Glass	MO	Glass	Ripple Glass is a glass recycling company that helps keep glass out of landfills, and in circulation.	Help hundreds of communities keep glass out of their landfills.
Reterra	TX	Plastics	Reterra is a Houston-based advanced recycling company that turns waste byproduct streams of PET plastic that are produced during the recycling process into high value intermediary products.	Create a market for material that would otherwise typically end up in a landfill, while improving the overall economics of PET recycling.
Revolution Systems	CO	Recycling Infrastructure	Revolution manufactures low-cost, modular MRF systems for small communities.	Recover recyclables from rural and underserved areas via Modular Material Recovery Facility equipment
rPlanet Earth	CA	Plastics	rPlanet Earth is the world's first completely vertically integrated manufacturer of post-consumer recycled PET (rPET) and multiple high rPET content packaging products, creating a much needed market for PET packaging collected from curbside recycling programs across California.	The company estimates that every ton of PET recycled at rPlanet Earth's facility will help reduce global greenhouse gas emissions by 2.5 metric tons of CO <sub>2</sub>
Scott County	IO	Single stream	The Waste Commission of Scott County, a solid waste district in NE Iowa, with support from the Closed Loop Infrastructure Fund invested in new single stream recycling carts.	Continue to strengthen and modernize the county's recycling infrastructure to improve material recovery
TemperPack	NV	Packaging	TemperPack solves thermal packaging problems through sustainable design. TemperPack specializes in bringing custom solutions for clients to scale in the perishable food and life sciences industries. Today, TemperPack operates two facilities in Virginia and Nevada and is rapidly expanding its reach in the perishable and cold chain shipping market, all with the goal of reducing the amount of packaging that ends up in landfills.	Reduce the amount of expanded polystyrene used for cold-chain insulated packaging
City of Waterbury	CT	Single stream	The City of Waterbury, CT is the fifth largest City in the state with a population of 110,000 residents.	Enhance recycling rates in the city through improved collection of recyclable materials
Waste Commission of Scott County	IA	Single stream	Waste Commission of Scott County, a solid waste district in NE Iowa serves the Quad Cities area. A new material recovery facility handles more than 17,000 tons of recyclables per year from expanded curbside programs in Bettendorf and Davenport, as well as for the region.	<ul style="list-style-type: none"> <li>Improve access to convenient curbside recycling for 48,500 households</li> <li>Recover more tons of single-stream recyclables</li> <li>Generate savings and revenues for the County and nearby communities</li> </ul>
City of Waterbury	CT	Single stream	The City of Waterbury CT has expanded its curbside recycling program, offering 95-gallon recycling carts to every household with a goal to increase the current 6% recycling rate to 25% in the next three years.	<ul style="list-style-type: none"> <li>Improve access to convenient curbside recycling for more than 32,000 households</li> <li>Generate savings for the City</li> </ul>

\*Closed Loop Partners has exited its position with these organizations

## Closed Loop Beverage Fund Portfolio

INVESTMENT	LOCATION	MATERIAL	SUMMARY	IMPACT BY 2030
City of Ann Arbor	MI	Recycling Infrastructure	The loan, provided to Recycle Ann Arbor, in partnership with the American Beverage Association, will help create a state-of-the-art materials recovery facility that allows for enhanced sorting of valuable recyclable materials, like the beverage industry's 100% recyclable polyethylene terephthalate (PET) plastic bottles.	<ul style="list-style-type: none"> <li>Collect an estimated 284 million new pounds of materials collected over 10 years, including 7 million pounds of PET and 740,000 pounds of aluminum</li> </ul>
Evergreen	OH	Recycling Infrastructure	Evergreen is a plastics reclaimer and rPET manufacturing facility.	<ul style="list-style-type: none"> <li>Expand services to process recycled PET plastic into food-grade recycled rPET pellets used to manufacture new bottles</li> </ul>

## Closed Loop Leadership Fund Portfolio

INVESTMENT	LOCATION	MATERIAL	SUMMARY	POTENTIAL FOR IMPACT
Apkudo	MD	Supply Chain	Apkudo is the only platform designed by and for electronics reverse logistic operations.	<ul style="list-style-type: none"> <li>Enable transparency across the lifecycle of electronic devices, support smart decision making and strengthen repair, resale &amp; recycling markets.</li> </ul>
Balcones Resources	TX, AR	Recycling Infrastructure	The largest privately held recycling company in Texas, with 25 consecutive years of profitability and dividend payments to shareholders.	<ul style="list-style-type: none"> <li>Diverts 200,000 tons of recyclables from landfill annually</li> </ul>
ERI	CA	Recycling Infrastructure	ERI is the nation's leading electronics recycler, strengthening circular electronics supply chains that benefit people, the planet and business.	<ul style="list-style-type: none"> <li>Process electronic waste at its eight certified locations, serving every zip code in the U.S..</li> </ul>
Single-Stream Recyclers	FL	Recycling Infrastructure	A bolt-on acquisition of Balcones Resources; the first artificial intelligence-powered recycling company in the United States.	<ul style="list-style-type: none"> <li>Divert 1.2 million tons of material from landfills by 2030</li> </ul>

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