

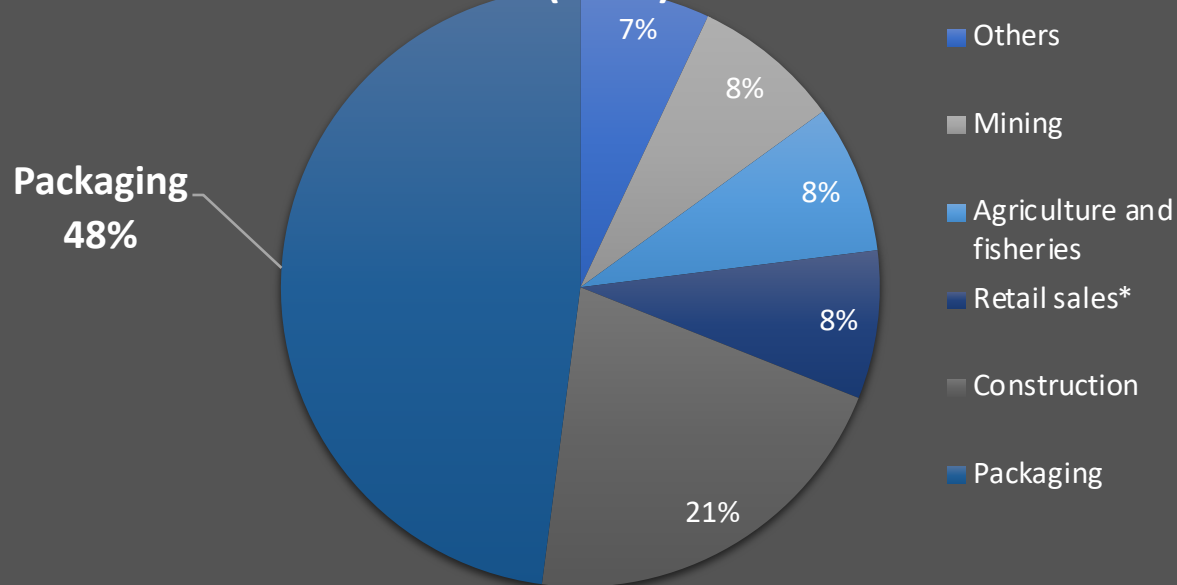
# An Overview of the Plastics Industry in Chile & Opportunities for Business and Development

*By Magdalena Balcells*

# Facts about the plastic industry in Chile

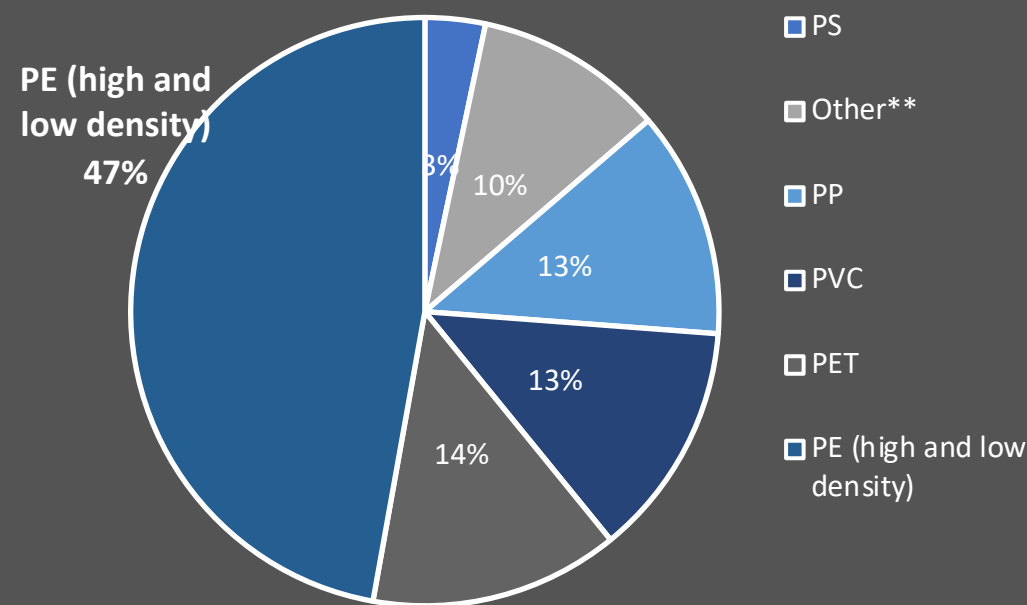
- In 2019 the annual plastic consumption in Chile was close to 1 million tons which is equivalent to **56 kg per person**
- The bulk of this demand comes from sectors associated with **bottles and packaging** which account for 48% of the demand while **retail, mining, agriculture and fisheries account for 8%** respectively adding up to a **24%** of the demand.
- Today, the annual (2018) sales associated to the plastic industry are over **US\$2.650 million**, equivalent to **0,89%** of Chile's GDP.

## Demand for plastic in Chile by industry sector (2019)



\*Includes household, sports, and recreation.

## Demand for plastic in Chile by type of resin (2019)



\*Includes PU, engineering and other resins.

# Facts about recycling of plastics in Chile

- Today, 89% of all plastic packaging waste generated in Chile, is collected and discarded in landfills, 7% is recycled and 4% ends up in ecosystems
- In 2018 Chile recycled over 83.000 tons of plastic, where 17% came from household waste and 83% from non-household or industrial residues.
- From the 17% originated by households close to 55% were PET bottles.
- The trend of plastic recycling in the country is mainly focused on **Polyethylene (PE)**, **Polypropylene (PP)**, and **Polyethylene terephthalate (PET)**, which is in line with global tendencies.



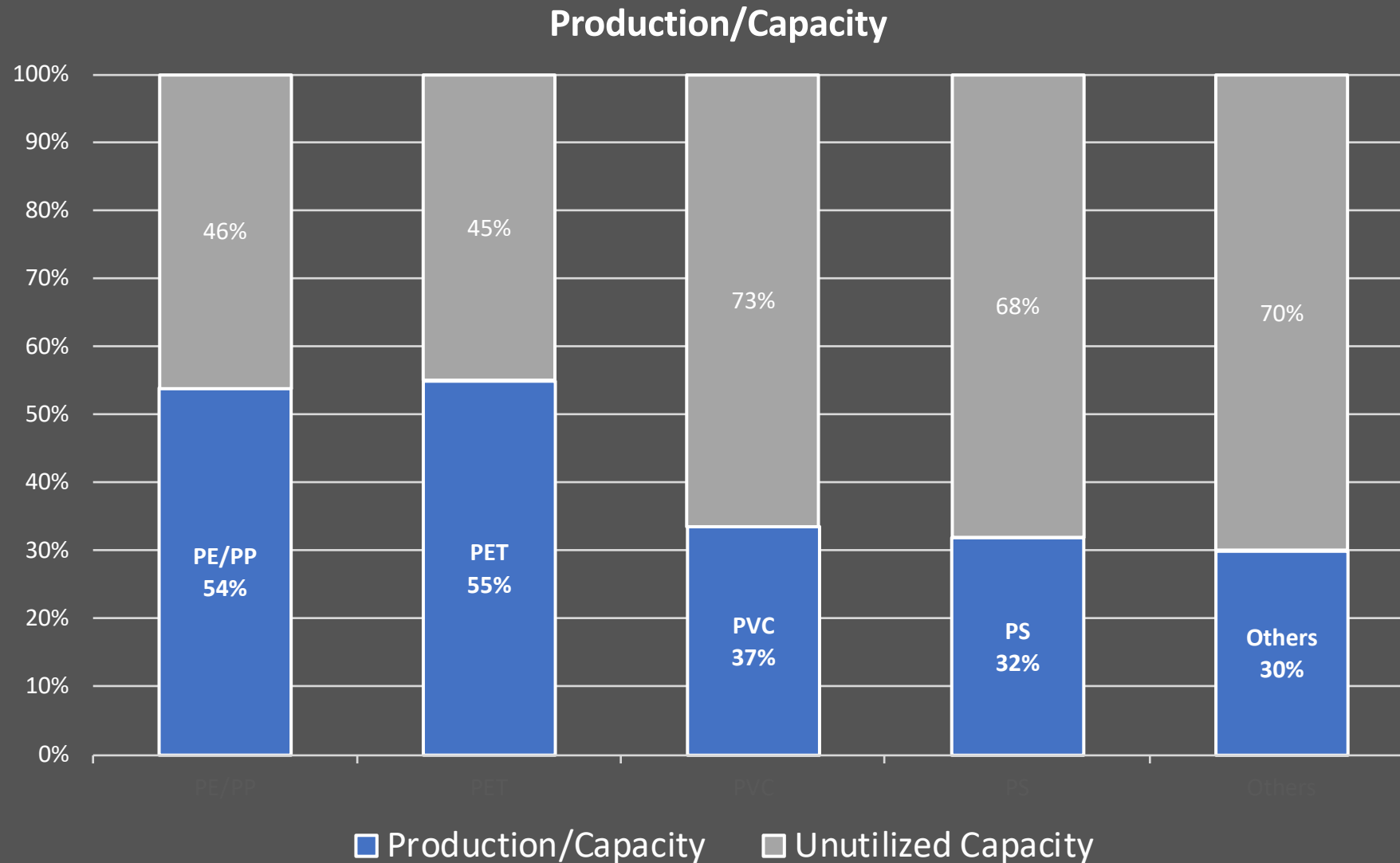
# Installed recycling capacity in Chile

- The installed capacity for plastic recycling in the country is designed mainly for **Polyethylene (PE), Polypropylene (PP), and Polyethylene terephthalate (PET)**.
- The anual (2018) installed capacity for recycling is just over **80,000 tons** for washing processes, close to **150,000 tons** for crushing and shredding, and nearly **110,000 tons** for pelletizing recovered material.
- Just **48%** of the installed crushing capacity and 57% of pelletizing capacity are currently in use.
- If the industry were able to use its entire installed capacity for crushing and pelletizing, the volume of recycled plastics could be increased by at least **65,000 tons annually** (increase of 77%).

Type of process	Type of resin (tons)					
	PE/PP	PET	PVC	PS	Others	Total
Washing	56,100	26,350		2,550		85,000
Crushing	104,582	26,514	4,419	4,419	7,3649	147,298
Pelletizing	96,048		4,269	2,134	4,269	106,720
Production/Capacity	54%	55%	37%	32%	30%	52%

Source: (ASIPLA,2019)

# Installed capacity for plastic pretreatment in Chile



Source:  
(ASIPLA, 2019)



# Installed capacity for Collection and Sorting

- Collection and sorting facilities are limited, and concentrated in **the Metropolitan Region**. An estimated **64%** of Chile's recycling capacity is located in this region. It is crucial to expand this capacity throughout Chile, which is 4,200 km (2610 miles) long.
- In 2018, **2.530 plastic waste collection points called puntos verdes (green points) and 98 puntos limpios (clean points)**, which are facilities or stations that accept a variety of materials for recycle, were identified.
- Currently, **there is only one semi-automatic sorting facility in Chile** and a number of small manual sorting systems. This sorting capacity has proven insufficient for the rest of the recycling industry system.



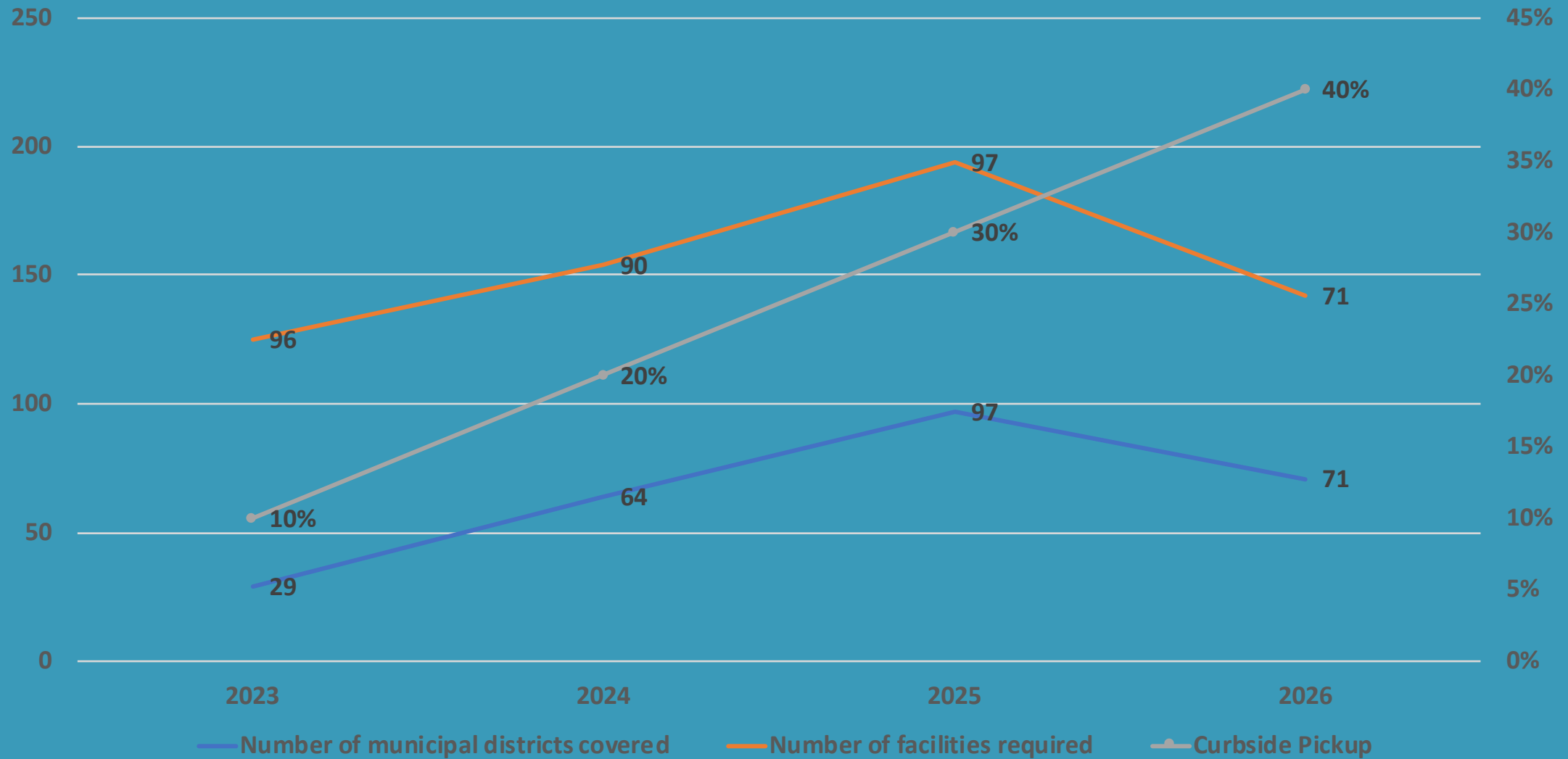
# Opportunities arising from the EPR Law

- With the enactment of the EPR Law, the recycling of plastic is shifting from a voluntary action primary pushed by entrepreneurs and price competitiveness of the recycled plastic resins (in contrast to virgin resins), to an obligation to which Brand Owners and sellers of consumer goods will be made responsible for the recovery of the residues generated by the packaging of their products.
- The EPR scheme establishes that 80% of all households in Chile will have access to curbside pickup of recyclable products whereas today the coverage hardly reaches 10% of households in the country.
- Additionally, the Law calls for the mandatory installation of “puntos limpios” or collection points to service 75% of Chile’s districts. In a four-year period, 350 new puntos limpios will be opened and will operate under the recycling management system in compliance with high quality standards.

Implementation year	Number of municipal districts covered	Number of facilities required	Curbside Pickup
2023	29	96	10%
2024	64	90	20%
2025	97	97	30%
2026	71	71	40%
Total	261	354	

# Opportunities arising from the EPR Law

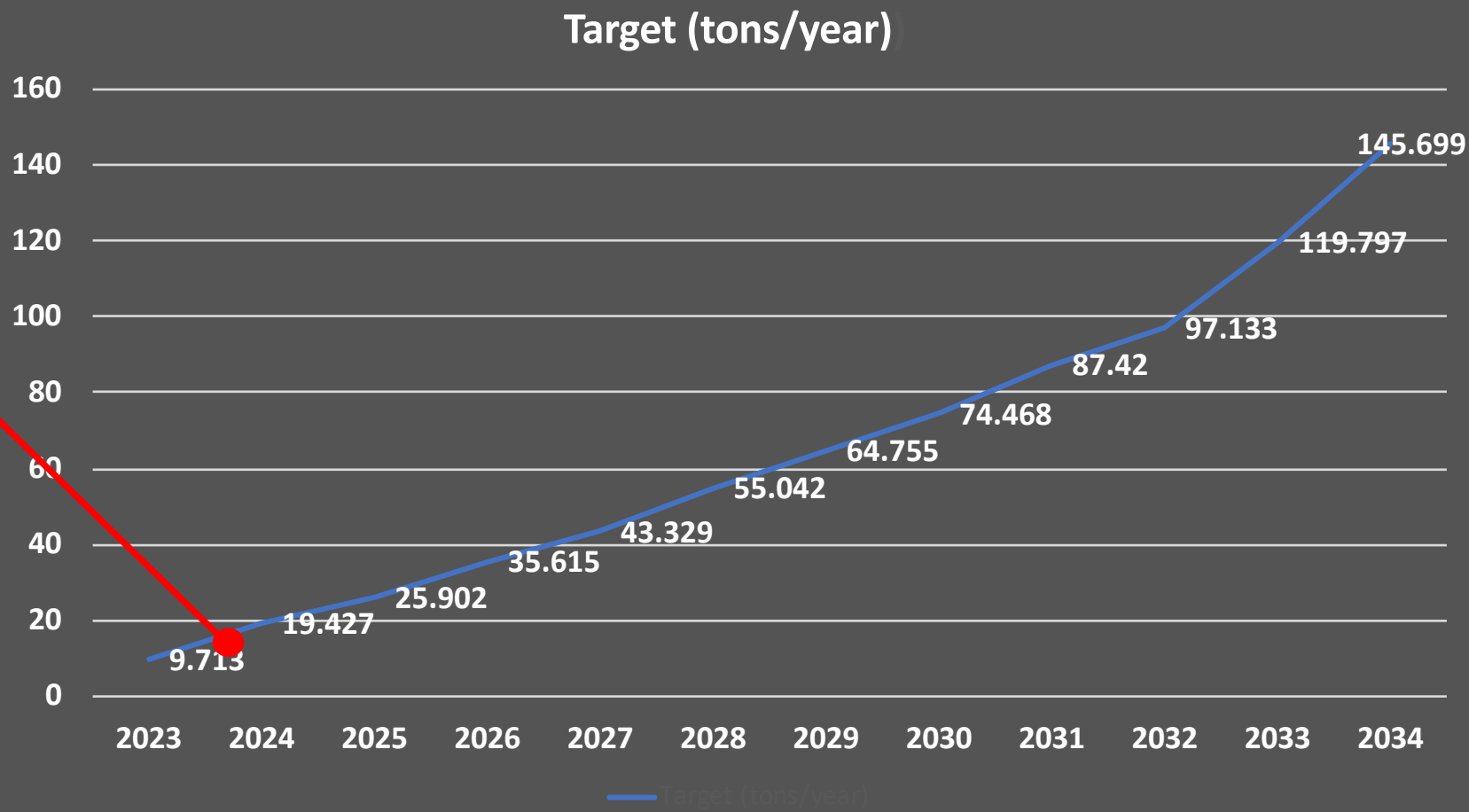
EPR Law requirements for facilities to receive and store recyclable waste



Source: (MMA,2021)



# Plastic collection and recycling targets set out in the EPR law



WE ARE NOW (2021) recovering 14,225 approx. (tons/year)

- The decree establishes a **24-month** deadline for companies to begin meeting their targets, with 2023 being year 1, today we are recovering 14.225 tons/year

Source: (Triciclos,2021)





# Conclusions

- The current unutilized installed capacity for recycling means Chile can manage recycling at the present level without any problems. However, in light of the target recovery rates set out in the EPR Law, processing capacity will need to increase considerably to meet long-term recycling targets. For the same reason, a shortfall is anticipated with regard to investment in infrastructure for classification and/or valorization plants.
- Chile's recycling industry is positioning itself as a focal point for economic development and a role model in economics that has a positive impact in social and environmental areas.
- The new legislation, synergy between public-private stakeholders, and the dynamic ecosystem are setting up new niches for investment and entrepreneurship, especially for international recycling and revalorization companies.



# CIRCULA EL PLÁSTICO

## SOCIOS FUNDADORES



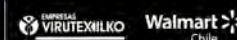
## SÓCIOS



## MEDIA PARTNERS



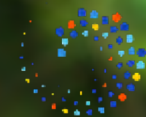
## IMPLEMENTADORES



## COLABORADORES







CIRCU  
EL PLÁSTICO

# New plastics economy



The Ellen MacArthur Foundation's **New Plastics Economy** is an ambitious initiative born 4 years ago to create momentum toward a plastics system that works. Applying principles of circular economy, it brings together key stakeholders to rethink and redesign the future of plastics, starting with packaging.

**Core Partners**

amcor Coca-Cola DANONE MARS NOVAMONT PEPSICO Unilever VEDIA L'OREAL

**Participants**

BASF Constantia Nestlé M&S Suez TOMRA APK  
SWIRE BEVERAGES SCHWARZ NYCEDC wrap TEBRACYLE loop  
greiner P&G FUTAMURA Henkel RecyclePoints Re-POLY  
DUPONT RPC P&G RECYCLEBC ZERO WASTE RecyclePoints ExcelRise  
NatureWorks Mondi WOLFF & MÜLLER RECYCLEBC KKKPK M&P Recycling Technologies  
Dow Sealed Air COLDWATER PAPER/PLASTIC CONCEPTS

**A Global Commitment to engage  
organizations around the world in  
tackling waste and plastic  
pollution at its source.**







Led in Chile by the **Ministry of the Environment (MMA)** and **Fundación Chile**, working with the **Ellen MacArthur Foundation (EMF)** to be part of a global network of Plastic Pacts.



November 2018

**COMMITMENT  
MMA & EMF**

March - April, 2019

**FOUNDING  
MEMBERS JOIN**

April - July, 2019

**COMMITMENTS ARE  
BUILT**

July - August, 2019

**THE PLASTICS  
ECOSYSTEM IS  
GATHERED**

January, 2020

**ROADMAP LAUNCHED**

July - October, 2020

**WORKING GROUPS**

Oct - December 2020

**IMPLEMENTATION OF  
INITIATIVES**

Jan - September, 2021

**2021 MILESTONES  
AND RE  
PRIORITIZATION**



## 2025 COMMITMENTS OF THE PACT

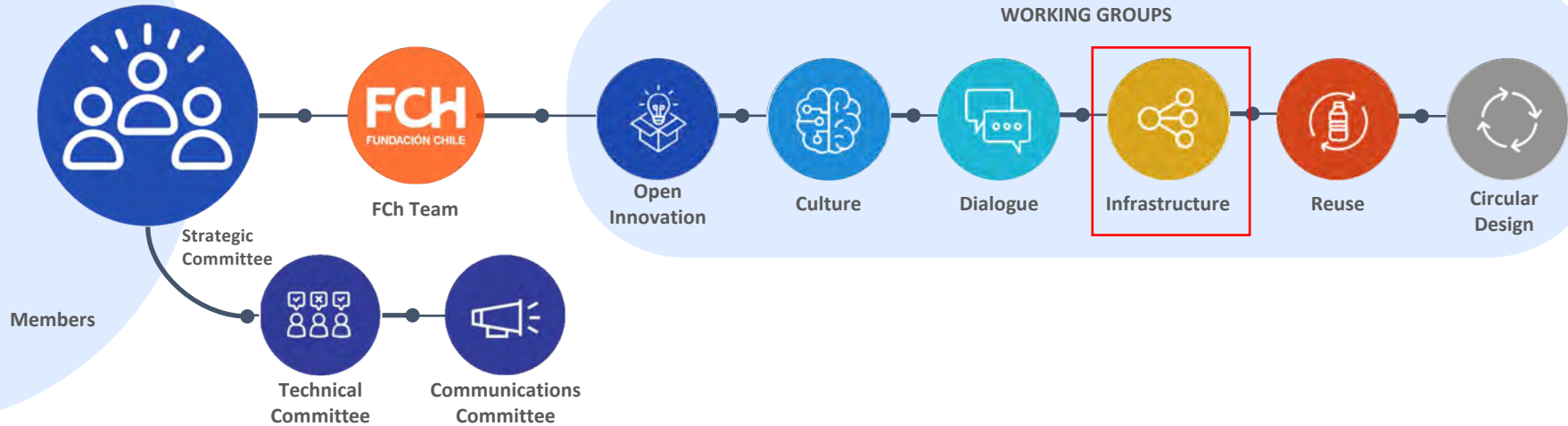
Take action to reduce unnecessary and problematic plastic products and packaging through redesign, innovation, or alternative delivery models.

100% of plastic packaging designed to be reusable, recyclable or compostable

1/3 of household and non-household plastic packaging must be reused, recycled or composted

Plastic Packaging must have - among their different formats - an average of 25% recycled material

Members



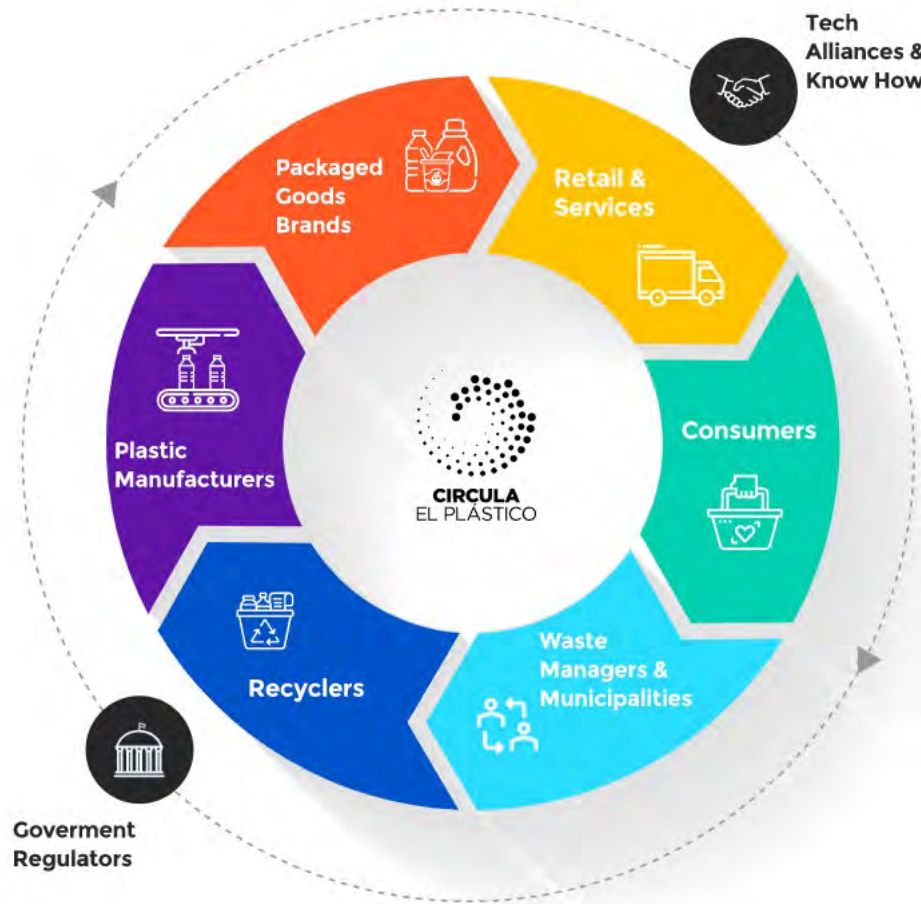
Members



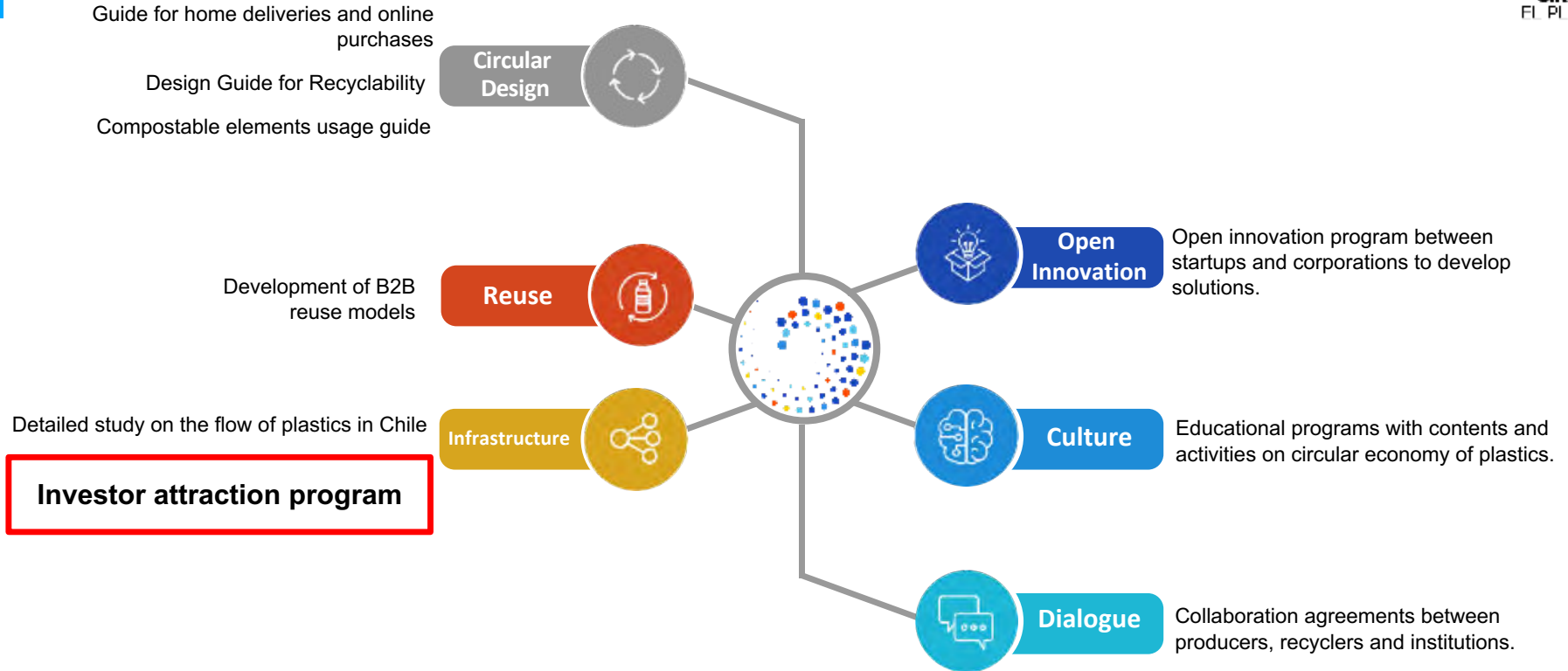
# GOVERNANCE

## Chilean Plastic Pact

Actors in the value chain and relevant agents that make up the plastic ecosystem in Chile.



# PRIORITIZED 2021 INITIATIVES - CHILEAN PLASTIC PACT



# The Plastics Pact, a key ally for investors interested in the recycling industry

The work carried out by the Plastic Pact makes this network an outstanding ally for investors interested in financing plastic classification and/or valorization plants in Chile:

- **Connection with the public and private sector, helping investors and project developers to access key conversations.**
- **Connection with the whole value chain, accelerating access to key information, suppliers and know-how.**





# CIRCULA EL PLÁSTICO

SOCIOS FUNDADORES



SOCIOS



MEDIA PARTNERS



IMPLEMENTADORES



COLABORADORES







**CHILE LO  
HACEMOS  
TODOS**

# **The transition towards a circular Chile**

## Investment opportunities in recycling

Guillermo González, Head, Circular Economy Office

September 9th, 2021



# EXTENDED PRODUCER RESPONSIBILITY



Tyres



Packaging



Household batteries



Vehicle batteries



Lubrication Oils



Electric and  
electronical equipment

# TARGETS FOR PACKAGING

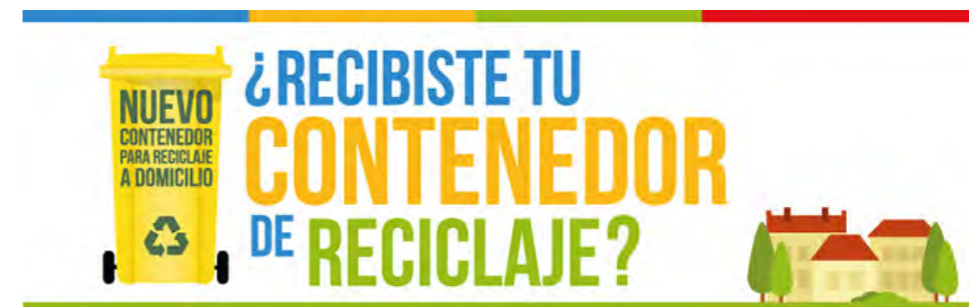
Year	Subcategory				
	Drink cartons	Metal	Paper & cardboard	Plastic	Glass
<b>1</b>	<b>5%</b>	<b>6%</b>	<b>5%</b>	<b>3%</b>	<b>11%</b>
2	8%	9%	9%	6%	15%
3	11%	12%	14%	8%	19%
4	15%	15%	18%	11%	22%
5	19%	17%	23%	14%	26%
6	23%	21%	28%	17%	31%
7	27%	25%	34%	20%	37%
8	31%	29%	39%	23%	42%
9	36%	32%	45%	27%	47%
10	40%	36%	50%	30%	52%
11	50%	45%	60%	37%	58%
<b>From 12</b>	<b>60%</b>	<b>55%</b>	<b>70%</b>	<b>45%</b>	<b>65%</b>

Year 1 starts in 2023

5x

# DOOR TO DOOR COLLECTION COVERAGE TARGETS

Year	Households nationwide
1	10%
2	20%
3	30%
4	40%
5	45%
6	50%
7	55%
8	60%
9	65%
10	70%
11	75%
From 12	80%





# COMBATING PLASTIC POLLUTION





**FCH**  
FUNDACIÓN CHILE



**PLASTICS PACT**



# CIRCULA EL PLÁSTICO

## SOCIOS FUNDADORES



## SOCIOS



## MEDIA PARTNERS



## COLABORADORES





# RECYCLABILITY LABEL

Conoce el proyecto de  
**Eco Etiquetado**

**#ElijoReciclar!**

Conoce más sobre el proyecto que hemos impulsado para crear un **sello que informará a los consumidores sobre la reciclabilidad de los envases de los productos** y que estará disponible próximamente.

INGRESA A

[elijoreciclar.cl](http://elijoreciclar.cl)



# SINGLE USE PLASTIC BILL



- ✓ Every item on a fast food restaurant tray will have to be reusable (plates, cups, cutlery, etc.)
- ✓ Plastic packaging will not be allowed for delivery – unless it's certified compostable plastic.
- ✓ Beverage PET bottles will have to meet minimum recycled content (of plastic collected in Chile).



A close-up photograph of a hand pouring water from a clear glass bottle into a compost bin. The bin is filled with various organic waste materials, including a large piece of brown bread, shredded orange carrot peels, green vegetable scraps, and other food waste. The background is blurred, showing more of the compost bin and some greenery.

**NATIONAL STRATEGY ON  
ORGANIC WASTE**





**CHILE LO  
HACEMOS  
TODOS**



# The Waste Transformers

**ORGANIC WASTE TO VALUE**  
**OUR ON-SITE SOLUTION: ENTERING THE MARKET IN CHILE**





- Input ALL organic waste
- Transforms 350 – 3600kg waste / day into energy
- Fully Plug & Play, Anaerobic Digestion system
- Conversion of biogas to electricity, residual heat & fertilizer ON-SITE
- Housed in standardised shipping containers
- Proprietary technology
- Compliance with strict EU rules
- Healthy business case
- Modular & scalable
- 24/7 online monitoring
- Low maintenance costs



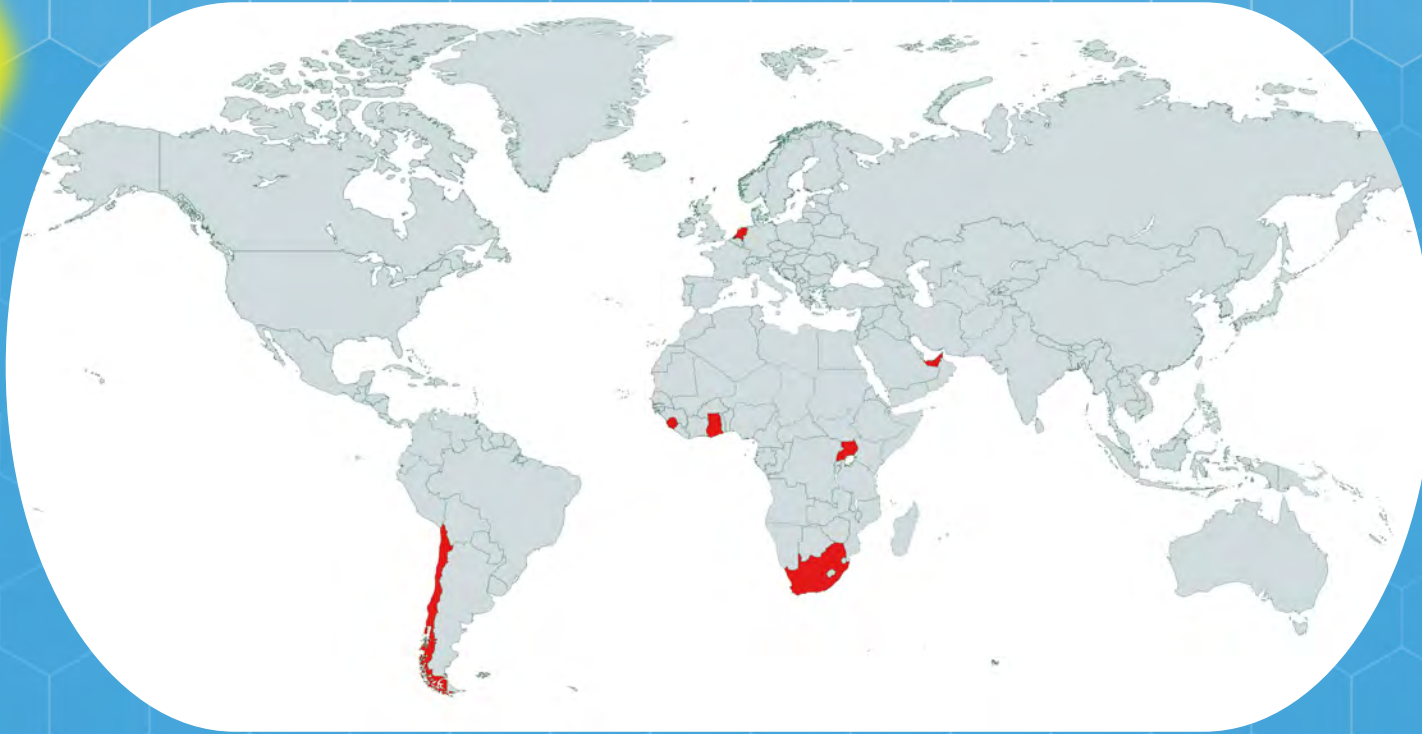


# OUR PRESENCE

The Netherlands



Chile



UAE



Sierra Leone



Ghana



South Africa



Uganda

## TO SUCCEED YOU NEED THE RIGHT LOCAL PARTNERS

- Entering a new market is never easy, especially with an innovative proposition.
- Regulatory and financial support can be difficult to obtain when you are doing something that has not been done before in that country.
- How we tackled it
- You need to find like-minded local partners that share the same values and are moved by the same passion.
- Our partners are pioneers in their own areas of expertise.
- Without the pioneering spirit of Territoria and Bzero's, our entry into the market would be a lot more difficult.

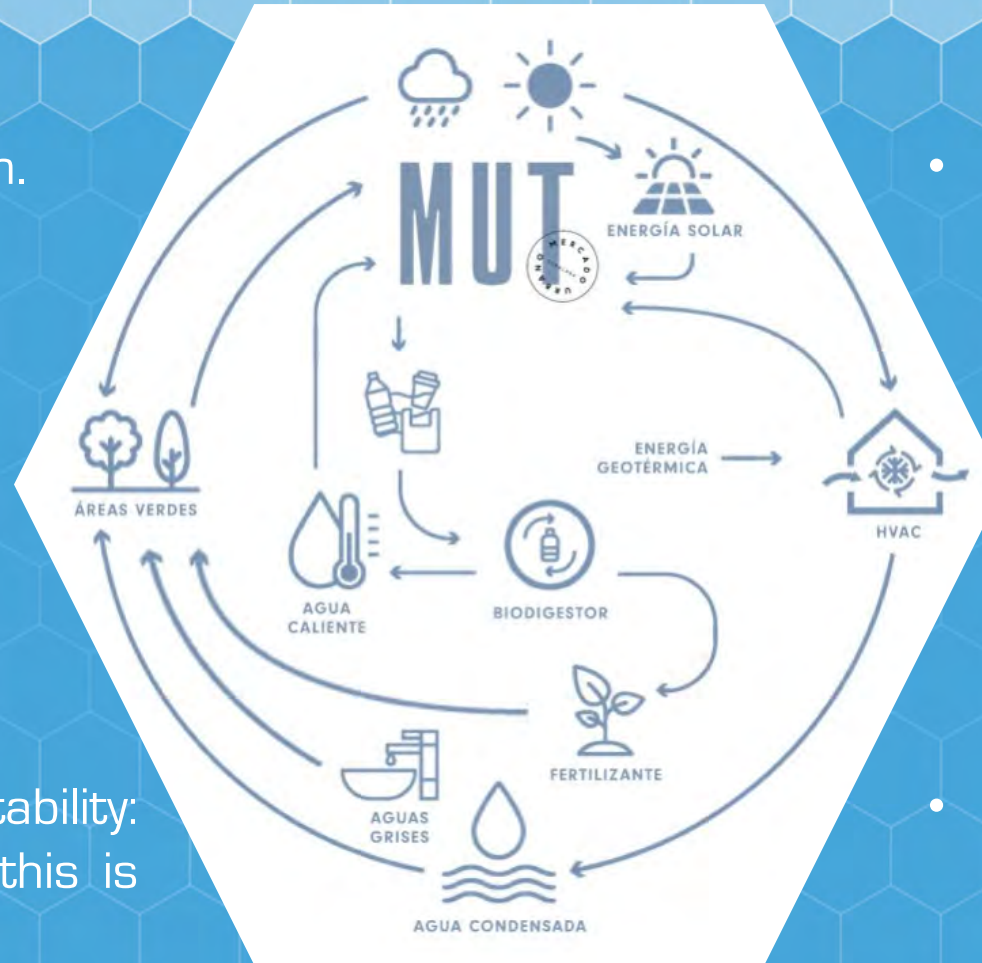




- Push the envelop for innovation.

- Benchmark for the cities of the future.

- A positive impact and repeatability: Chileans need to know that this is possible.



- Zero waste policy.

- Living Lab for innovation.

- First bio-digester inside a building: together we set the precedent.

- The help provided by the Dutch Embassy in Chile was fundamental to our market entry.
- Embassy has provided regulatory support.
- Our lessons learned:
  - partner with the best and the brightest.
  - share the risk.
  - share the successes.
  - build based on shared values and common ambitions.
  - regulatory frameworks can represent a stumbling block if you have an innovative product: in many cases, they are missing.
  - It often makes sense to build up the project in clearly defined building blocks: one step at a time.
  - Repeatability reduces your cost of sale.
  - Sourcing components locally helps the economy in the hosting country and decreases shipment costs (and pollution).





# The Waste Transformers

WILL YOU BECOME A DRIVER  
OF POSITIVE CHANGE?



THE WORLD CAN'T WAIT