

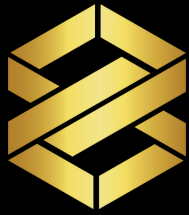
Gravitas



Infinitum

Our Businesses





# Gravitas Infinitum

A Sustainable Impact Holding Company

## Our Businesses



All of our businesses have a focus on being "Good" businesses to the Planet, People & Investors.



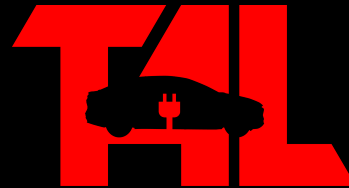
### Carbotura Zero-Fill

100% Recycling of  
Wastes to materials



### Carbotura Bio-Carbon

Atmospheric  
Carbon Capture to  
Bio-Nano Materials,



### T4L

Electric Vehicle  
Subscription  
Company



### Hot Planet Repair Team

Planet Repair  
Non-Profit for  
Planning,  
Demonstration,  
Proving &  
Capitalization



### The XO Company

Serverless, Zero-  
Code Platform that  
builds Platforms  
with a 99.9% lower  
Carbon Footprint





# Carbotura

## Zero-Fill

Recycle Everything  
Zero-Waste  
Zero-Emissions



# Disclaimer

What we do is transformative, for some it can be disturbing and fearful, for others a glimpse of ecstasy and hope.

We are **UNTRASHING** the planet!

This goes against thousands of years of human behavior...

Partner with us to untrash the planet!

Change is difficult.....

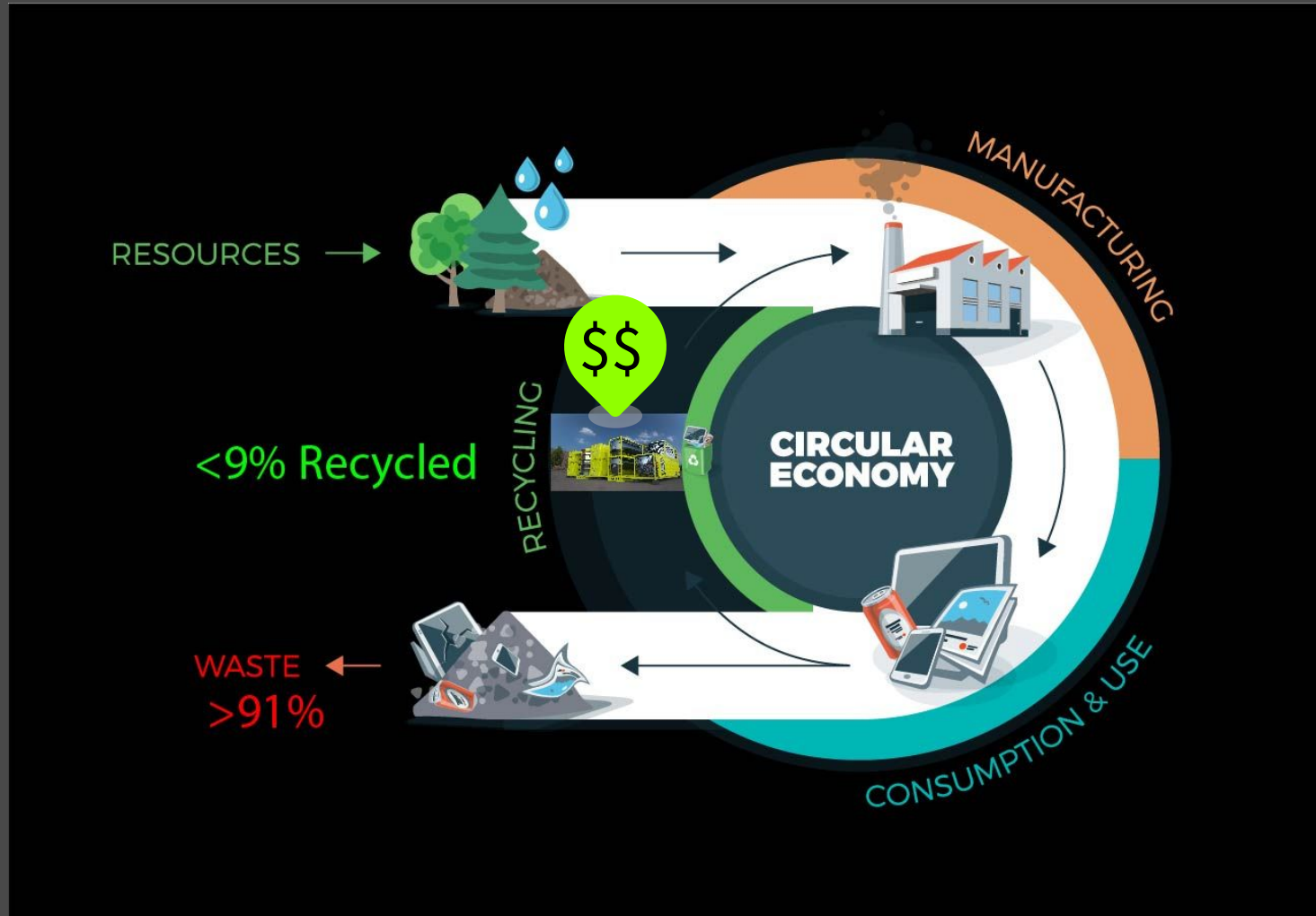


# Market Data

- The waste management industry is a growing industry with a global market size of \$1.3 trillion in 2020.
- The market is expected to grow at a CAGR of 5.5% from 2020 to 2027.
- The growth in the industry is driven by increasing population, urbanization, and industrialization, leading to an increase in waste generation.



# Market Driven solution that will own the circularity category solving an age old contamination crisis

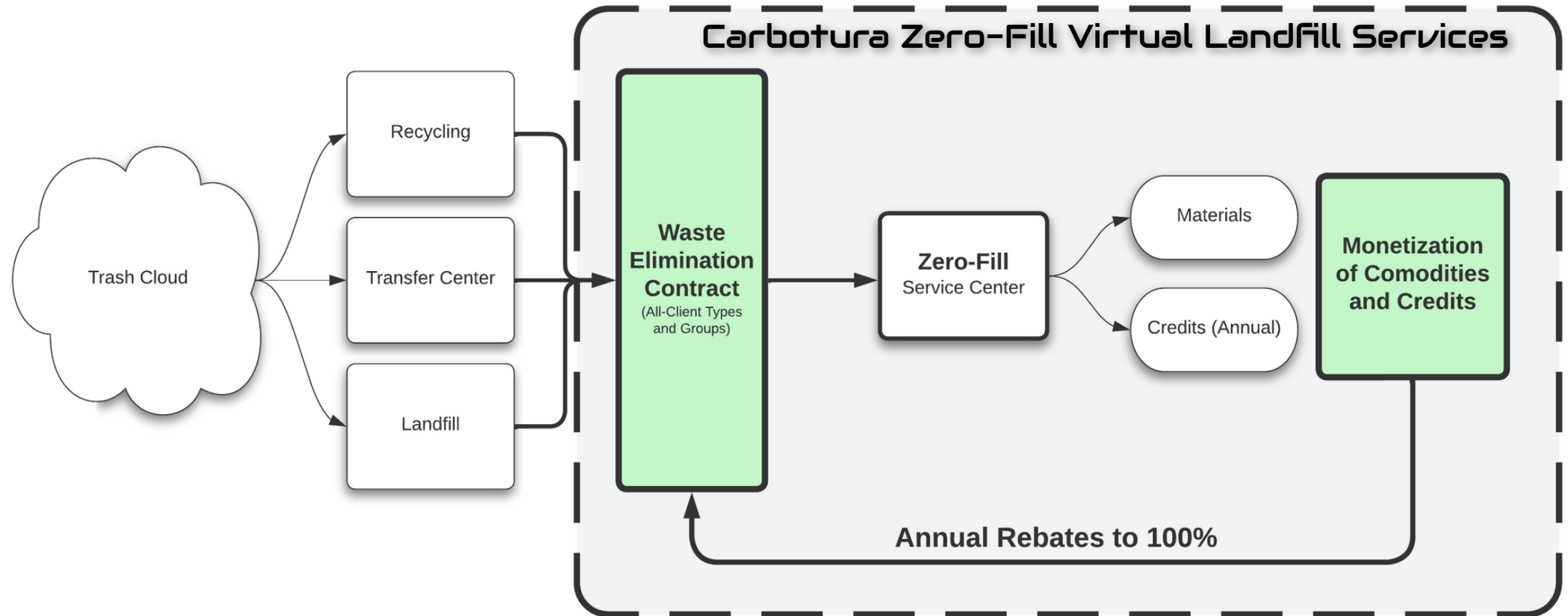


A full-page background image featuring a dead, bleached tree on the right side, standing on a vast, cracked, and dry lake bed. The sky is filled with dramatic, dark, and cloudy formations. The overall scene conveys a sense of environmental desolation and drought.

**Our Circularity can capture a 91% open market**



# A simple approach to integrating with existing systems and partners



1

Waste has a direct 4-5% impact on earnings to companies, and is expensive, often comprising 20%–50% of municipal budgets.

2

Today, companies mitigate waste, they do not eliminate waste.

3

Carbotura immediately converts your profit eroding waste to an earnings increasing machine, reducing costs and improving bottom lines.

## Our business model is simple:

- The price is \$65 per ton, any wastes.
- The price can be reduced with our annual rebates to zero.
- **Clients are required to guarantee waste and payment over a long-term contract, there is no capital required from the client.**



# What makes Carbotura standout!

- Zero-Now! Zero-Waste, Zero-Emissions
- 100% Recycling & Diversion from landfills
- Any type of waste, No sorting
- No Combustion of waste, No Emissions
- No Client Capital Required, just good credit
- **100% circularity**
- Atmospheric Carbon Capture





01

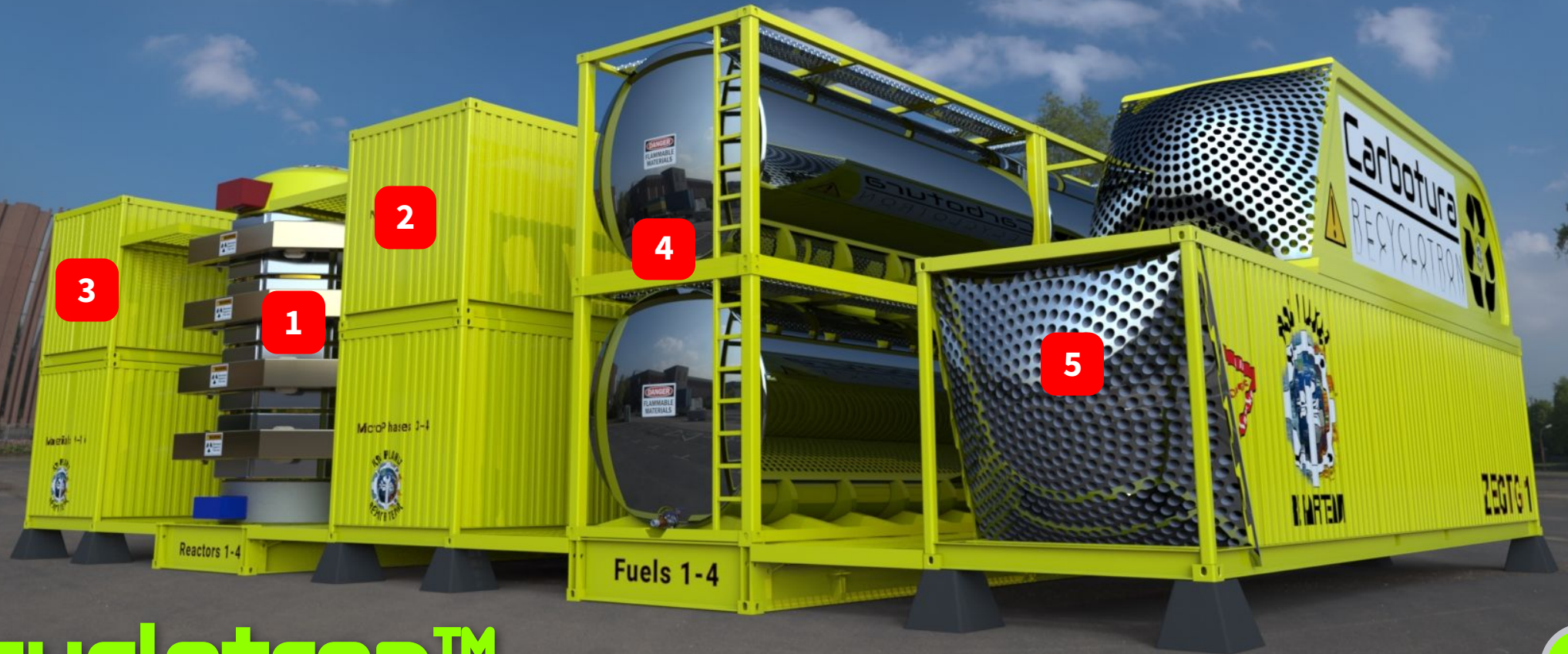
How do we **do it?**

**Warning: Technical Information Follows**



# 100 TPD MSW Module Shown Self Contained - Self Powering Rapid Deployment Containerization

1. Multiphase Microwave Reactors
2. Microwave Generators
3. Materials Recovery
4. Fuel Storage
5. Zero-Emissions Generator

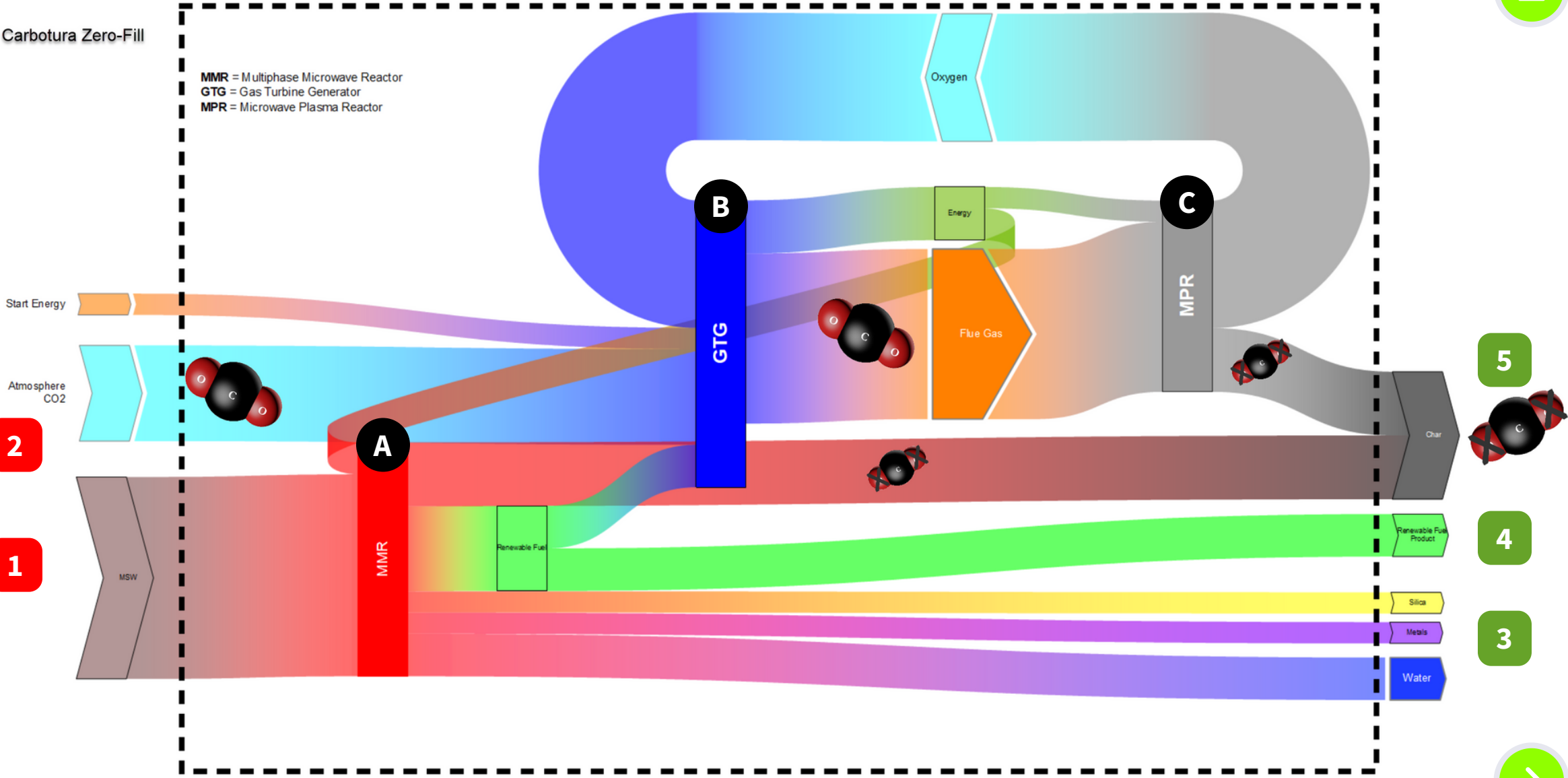


# Recyclotron™



Carbotura Zero-Fill

MMR = Multiphase Microwave Reactor  
GTG = Gas Turbine Generator  
MPR = Microwave Plasma Reactor



5

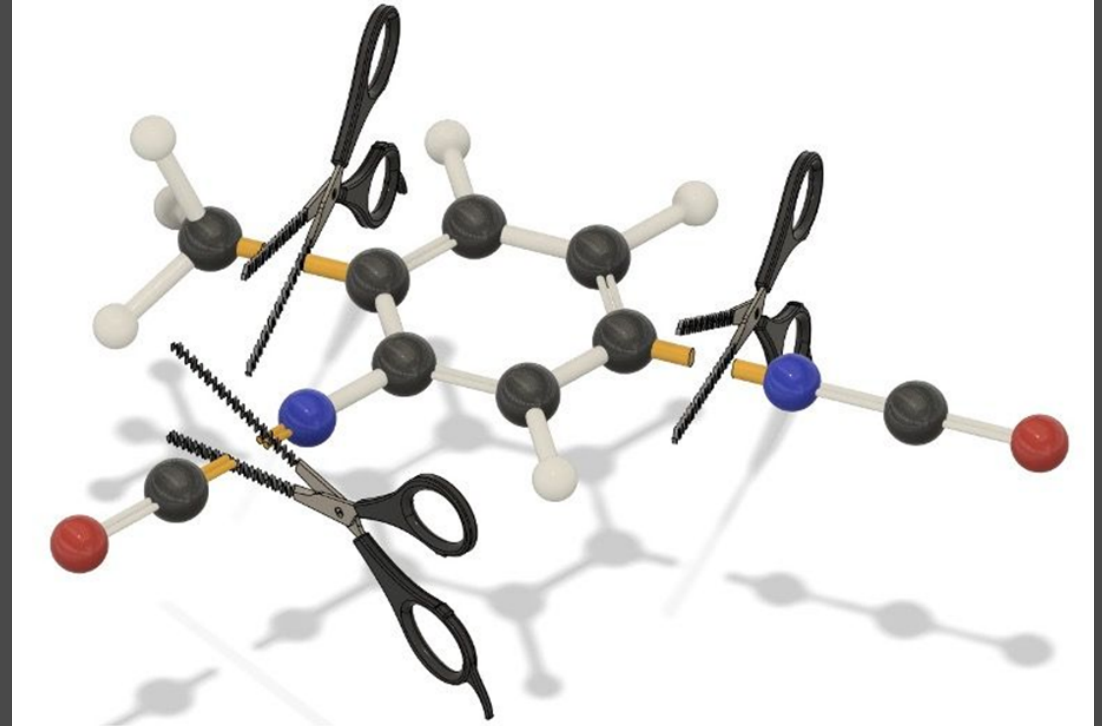
4

3



# Our Process

The primary function of the **Recyclotron** is “molecular debonding”. Molecular debonding is where we can selectively cut the bonds that make up specific molecules, thus making new molecules and releasing them from the molecular assemblies they were attached to.



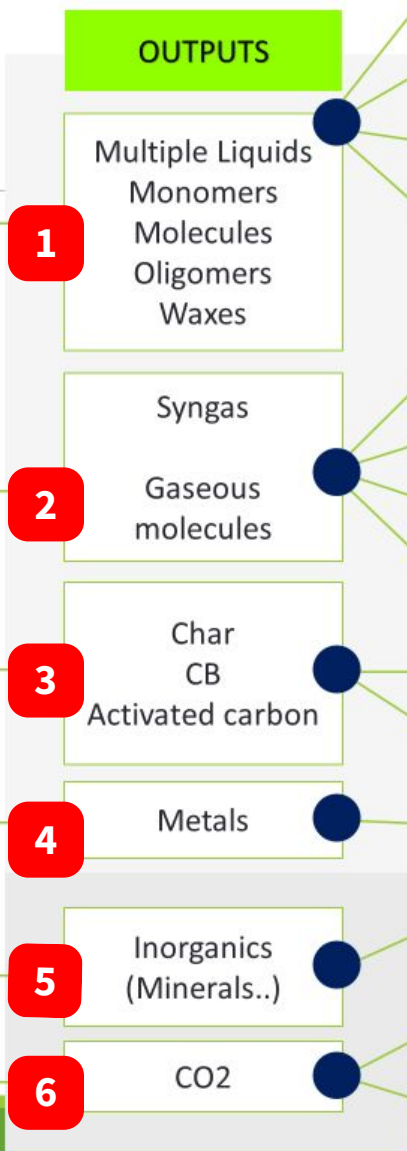
# Zero-Fill Output possibilities

Obtained after just **selective** depolymerization

Multi-phase  
Microwave reactor

## LEVEL 1 PROCESSING

Obtained after **selective** depolymerization+  
subsequent oxidation  
(remaining char/residues  
charred off after separation  
of liquids and gases)



## LEVEL 2 & 3 PROCESSING

To chemical company

i.e amine from seats, styrene, glycols, PMMA, toluene, limonene, isoprene (from tyres) etc.

To plastic maker (cracker input)

Polymerize PP, PU, PA6 ... (plastic recycle).

Back-end distillation (>99% purity)

To chemical company

i.e amine from seat, styrene, glycols, PMMA, toluene, limonene, isoprene etc.

Non-thermal plasma  
(cracking: ethylene, propylene, butylene)

To plastic maker

Use as internal combustion gas

Non-thermal plasma

Cracking to get molecules

ethylene, propylene and butylene

Micro-filtration/freezing

Separate gases (i.e CO2, methane, ...)

Thermal plasma

Generate carbon, graphite, graphene, hydrogen, methane, water vapor, CO2

Sell to industry (carbon black, batteries...)

Thermal plasma

Generate carbon, graphite, graphene, CO2

Sell to industry (carbon black, batteries...)

Oxidize out to CO2

For recycling

To plastic maker (CF, GF to recycle in composite.. etc, silica (e.g. tires))

Non-thermal plasma  
(create solid carbon)

For carbon black/ carbon recycling  
(filler for tires, water treatment)

Thermal plasma  
(create graphene, graphite, CB, nanotubes)

For nanomaterial recycle (batteries, materials)



# MSW Material Fractions



## Fractions

Material	MSW Fraction	Fuel	Oil yield	HHV oil (MJ/kg)
Plastic	28.6%	32.6%	65.9%	42.95
Paper	24.5%	30.0%	47.1%	28.80
Fines	9.6%	12.8%	21.7%	42.95
Textiles	8.8%	10.0%	55.4%	19.30
Wood	6.5%	8.2%	52.0%	24.35
Biowaste	5.0%	0.4%	56.2%	16.90
Rubber	4.8%	2.2%	49.0%	42.50
Metal	4.6%	0.5%	0.0%	-
Glass	3.2%	0.7%	0.0%	-
Stone	2.6%	0.0%	0.0%	-
Foam	1.8%	2.6%	48.6%	39.66
	100.0%	100.0%		33.86



# Carbon Material Fractions



Mass balance	Material	Fraction	Char yield	Char	Oil	Solids (other)	Gas
	Plastic	28.6%	13%	4%	18.8%	0.0%	3.9%
	Paper	24.5%	36%	9%	11.5%	0.0%	4.1%
	Fines	9.6%	11%	4%	2.1%	6.4%	0.4%
	Textiles	8.8%	31%	3%	4.9%	0.0%	1.2%
	Wood	6.5%	25%	2%	3.4%	0.0%	1.5%
	Biowaste	5.0%	27%	1%	2.8%	0.0%	0.9%
	Rubber	4.8%	40%	1%	2.4%	1.1%	0.2%
	Metal	4.6%	-	0%	0.0%	4.6%	0.0%
	Glass	3.2%	-	0%	0.0%	3.2%	0.0%
	Stone	2.6%	-	0%	0.0%	2.6%	0.0%
	Foam	1.8%	14%	0%	0.9%	0.0%	0.7%
		100.0%		23.2%	46.8%	17.9%	12.9%

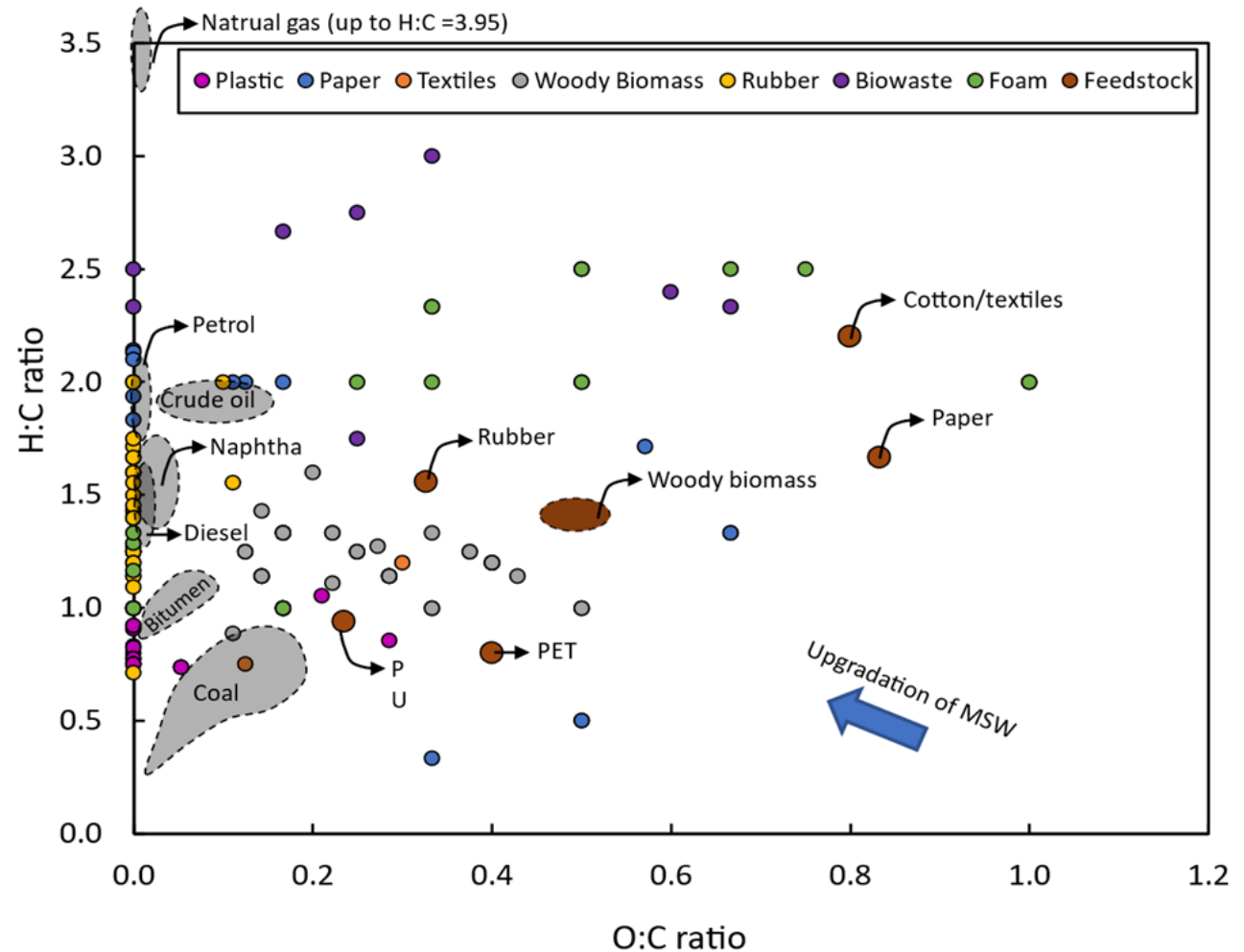
87% Carbon

87% Carbon



# Van Krevelon Chart

Detailed Molecular and atomic values from running processes available upon request



## Systems used by the following companies

ArmstrongFlooring



TOYOTA

Miele

artis



سابك  
sabic

apollo



Styroppek

SARTORIUS



MOHAWK

Tarkett



AECI





## The system's most recent applications:

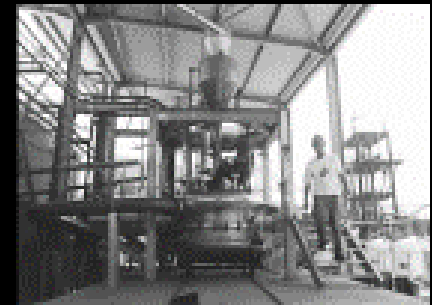
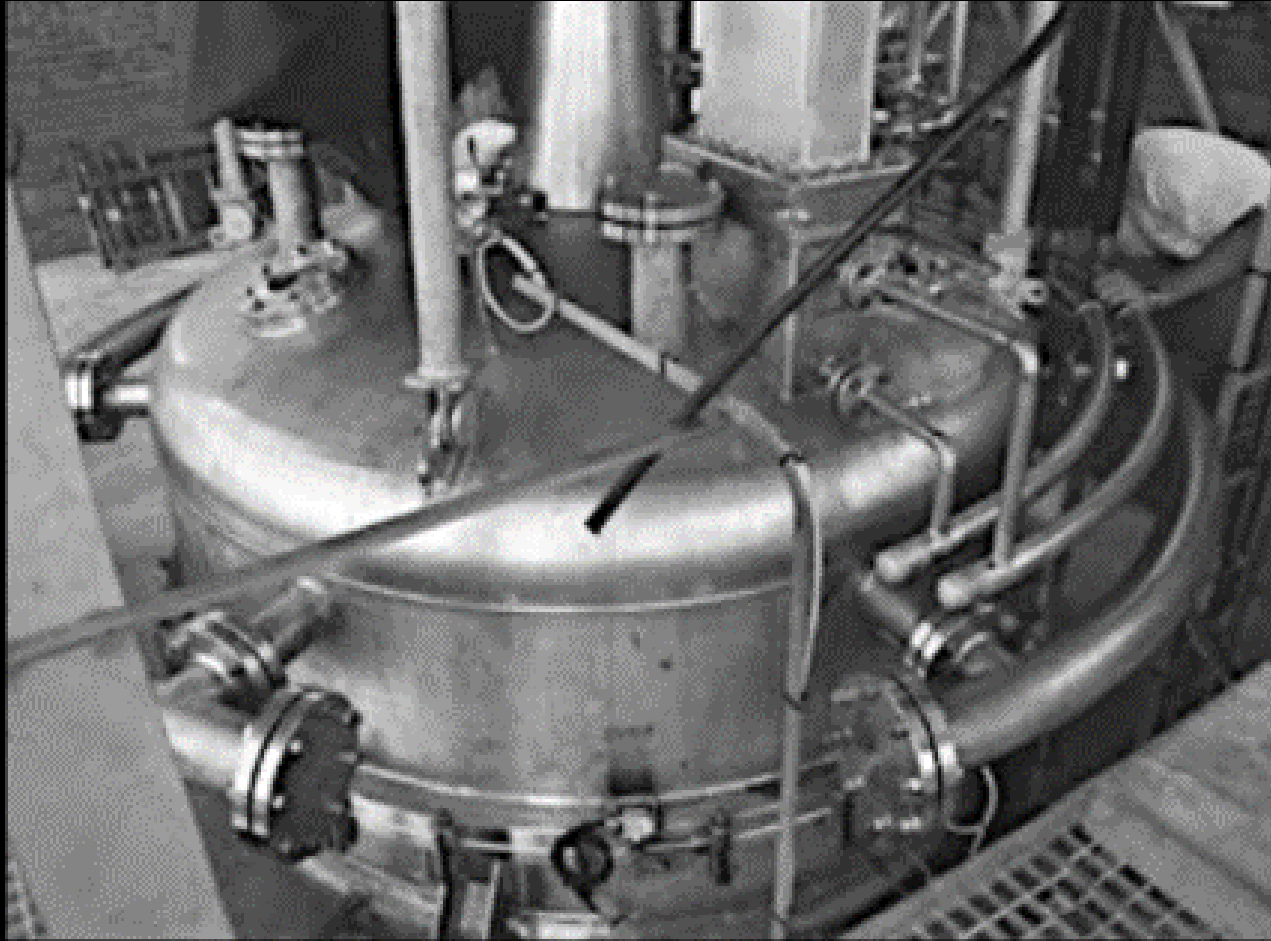
- Sorted and unsorted MSW
- Multiple different glass-fiber composites including wind-turbine blades and insulation panels
- Multiple different types of flooring categories (including vinyl flooring)
- Roof shingles
- Car shredder residues
- Carbon-fiber composites
- Paint waste
- Seats
- Different foams
- Mixed plastics
- PET
- Tires
- Bio & Medical waste
- Rubbers (including silicon rubber, natural rubber)
- Multiple different polystyrene waste streams (including panels)
- PMMA
- EPS
- Biomass (including wood, hemp)
- Labels and films
- C&D: roof shingles, all type of flooring categories including vinyl floorings, foam bases, polystyrene based and glass fiber based insulation panels, paint waste, cables, pipes

# Inputs

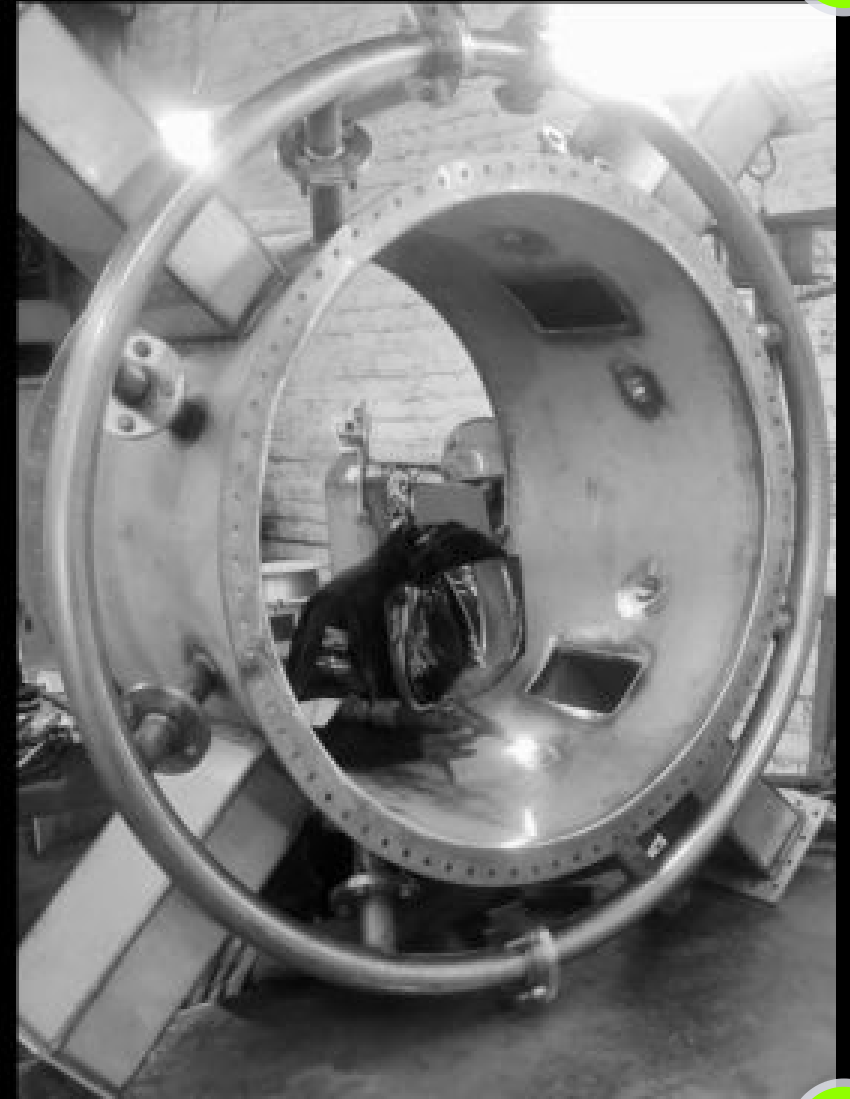
*3rd Party Verifications & Validations available under NDA*



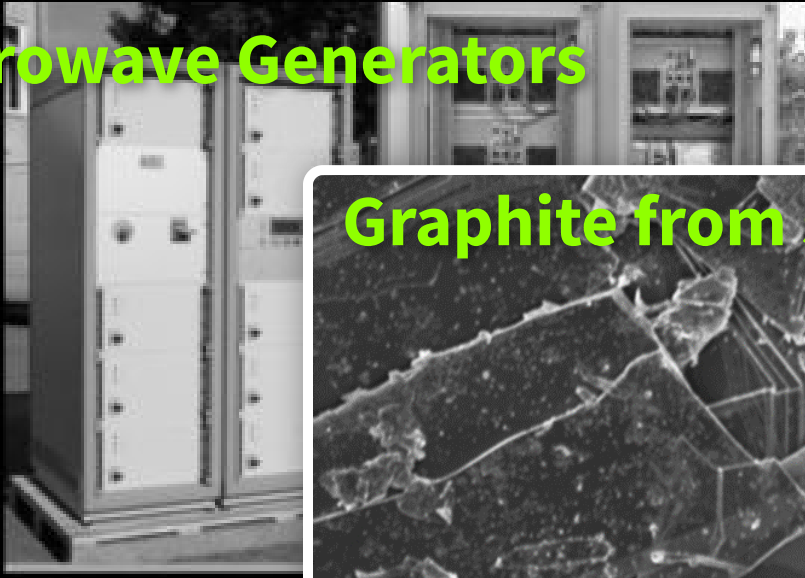
# Production Systems



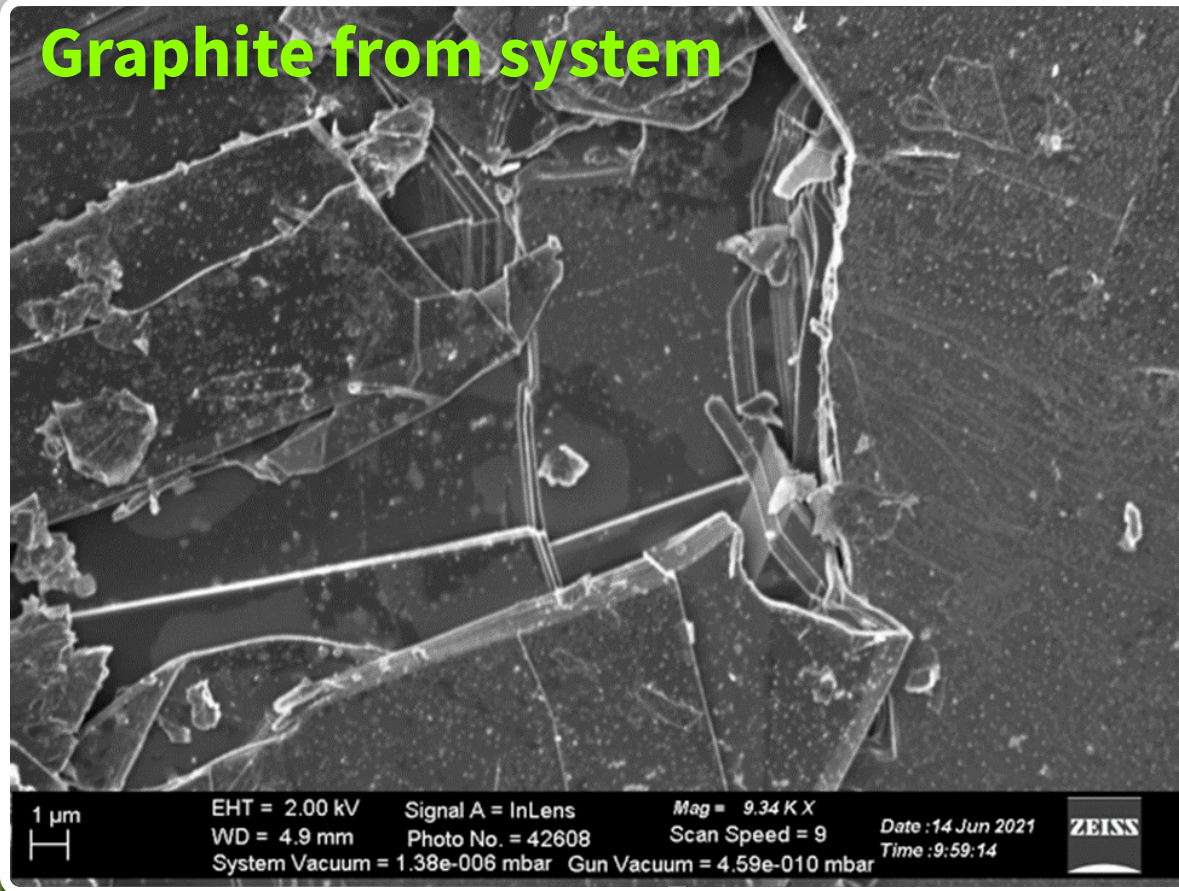
# Fabrication of Reactors



## Microwave Generators



## Graphite from system



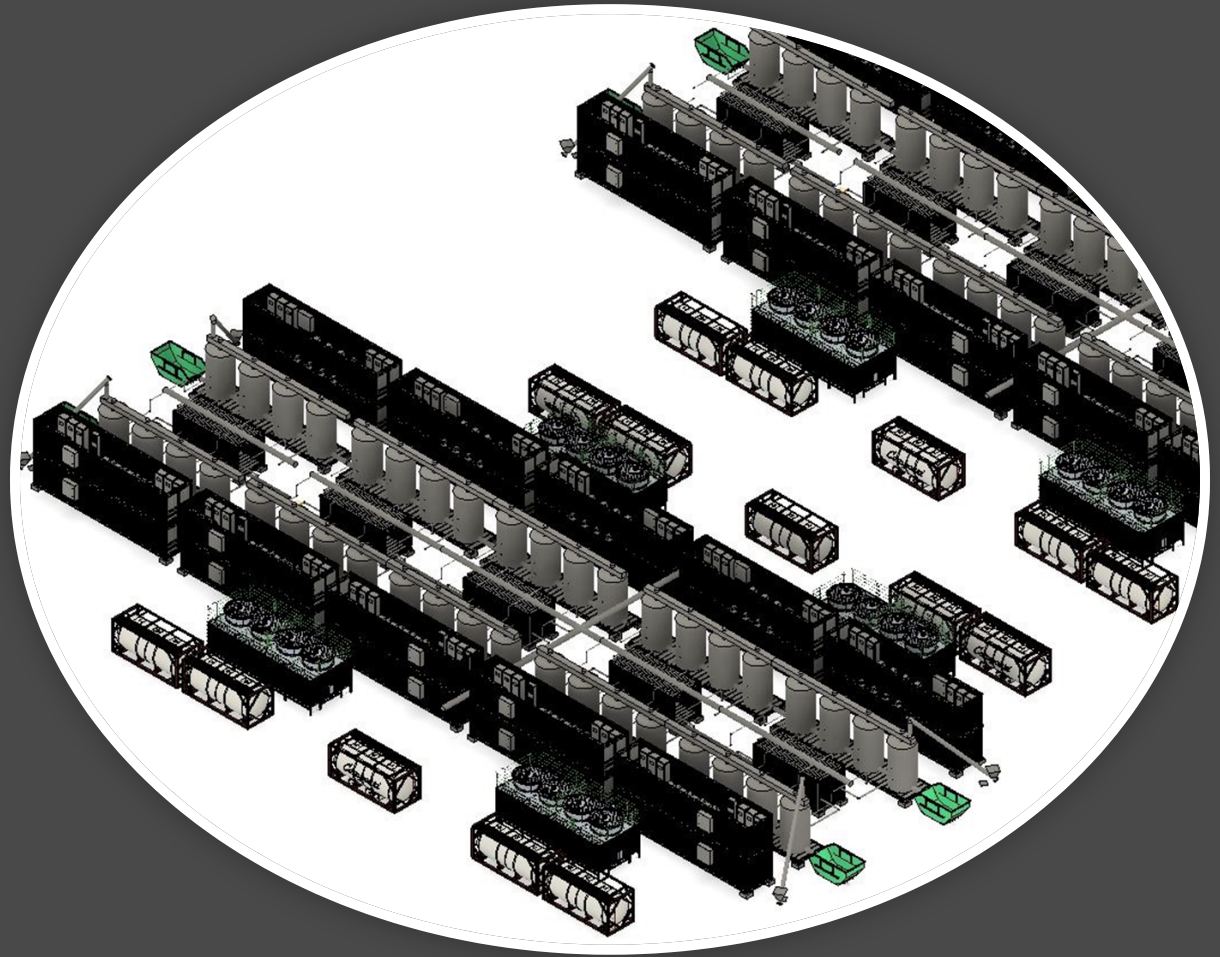
## Single Reactor Section

## Plasma Treatment of Flue Gas

## LARGE SCALE 2,000 TPD

### Zero-Fill Facility Metrics

- Lifespan greater than **30+ years**
- Processes **2,000 TPD**
  - 730,000 annual tons
  - 21,900,000 lifetime tons
- Fits in 200' x 200' buildings and equivalent structures (~3 acres)
- Energy Generation Options
  - Each 2000 TPD system can generate **30MW** Excess Capacity - Zero Emissions
- or; Fuels Options
  - Up to **5,000 GPH** Excess
- Advanced Material Processing Options
  - Graphite, Graphene



# Carbotura

## Zero-Fill Generates Monetized Climate Attributes

- Carbon Credits (CORC)
- Renewable Energy Credits (REC)
- Renewable Fuels Credits (RIN)
- Waste Collection Credits (WCC)
- Waste Recycling Credits (WRC)
- IRS 45-Qs



- Selected from 1,000's of companies
- Across 135 countries
- Award was granted 2021

## UN SDGs



# LEADERSHIP TEAM



ALLEN WITTERS

CEO



JOHN ARCIERO

COO



DAN BRYANT

CLO



TYLER WOOD

ESG



EVAN RICHTER

Director Finance



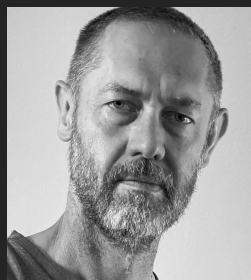
JONATHAN  
THOMAS

Senior Advisor



DR. FLORIAN  
TURK

Circularity  
Advisor



THYS  
ROSSOUW

Molecular Tech  
Advisor



NATIONAL  
STANDARD

Sovereign Debt  
Financial Advisor



# What makes Carbotura standout!



- Zero-Now! Zero-Waste, Zero-Emissions
- 100% Recycling
- 100% Diversion from landfills
- Any type of waste
- No sorting
- No Combustion of waste
- No Emissions from processing
- No waste from processing
- No Capital Required
- Can handle large package formats, bales, whole tires, sludge, etc
- Scalable to very large sizes 10,000TPD
- 100% circularity
- Atmospheric Carbon Capture
- Carbon negative operating footprint
- 2-3x more efficient than any other method
- No external power or water required
- Can provide microgrid energy source
- Lowest cost in dollars and to the environment
- Zero-Cost waste elimination goal





# Contact

**zero@carbotura.com**

[www.carbotura.com](http://www.carbotura.com)



# TBD New spin-offs



Combustion  
Engine Exhaust  
Treatment to  
Zero-Emissions &  
Carbon Capture



Large-Scale  
Lithium Ore  
Refining



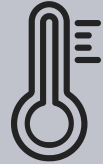
Ultra Bio-Mass  
Nano Materials &  
Fuels Processing



Oil Production  
Waste  
Remediation



Hi-Density  
Bio-Factory for  
Food Production



Large-Scale  
Thermal Storage  
&  
Solid State  
Boilers

Based on Recyclotron

Based on  
Bio-Carbon

Commercialization  
Required

