

## Business Executive Summary

### About Our Company

Chemcycle Co., Ltd., a waste management startup based in Thailand, specializes in offering plastic waste management and technological services. The company focuses on the development of waste segregation and plastic waste conversion and recovery modular units, tailored for both in-house use and licensing. Its flagship product, synthetic crude oil derived from waste plastic, serves as a critical feedstock for the petroleum and petrochemical industries.

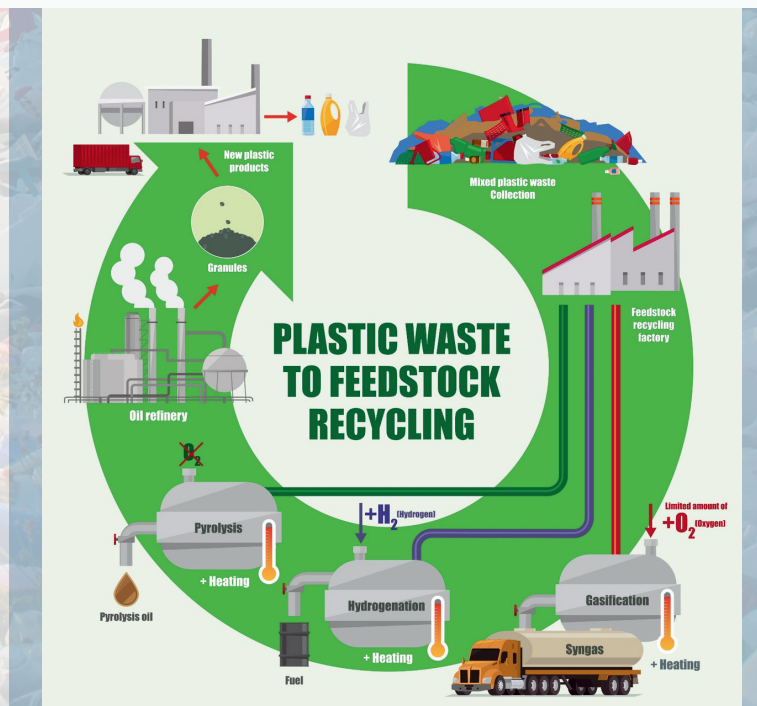
In collaboration with ECI Group Thailand, our technical partner and shareholder, we are committed to the ongoing research, development, and commercialization of waste separation, conversion, and recovery technologies.

### Mission

Chemcycle was founded with the primary objective of addressing the issue of municipal plastic waste accumulation, aiming to maximize value and minimize the carbon footprint.

### The Problem

Thailand ranks among the top ten global contributors to oceanic plastic waste. In 2022, the country generated over **25 million metric tons of solid waste**, yet had fewer than 400 appropriate waste disposal facilities. In contrast, nearly 3,000 sites in Thailand were identified as improper waste disposal locations.



### The Solution

Our waste plastic recovery system utilizes pyrolysis technology, a process that subjects plastic material to high temperatures in an oxygen-free environment. Chemcycle's plastic pyrolysis technology allows for the thermal recycling of all types of plastic waste from industrial and household sources with very little pre-treatment required. This technology is especially beneficial for landfill operators seeking a profitable and eco-friendly solution for disposing of plastic waste.



## Business Executive Summary

### Modular Mixed Waste Segregation Unit

Mixed waste consists of a variety of materials, and there are different techniques to ensure the separation of materials that can be recycled.

The most common way of extracting waste plastic from Municipal Solid Waste is to combine mechanical and biological treatment methods. Such methods include, but are not limited to:

- Size screening
- Coarse shredding
- Bag splitting
- Shredding
- Magnetic separation
- Refining separation



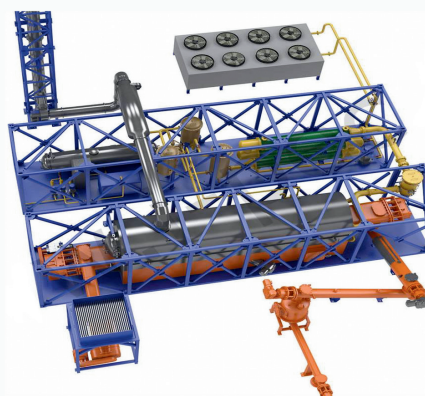
These processes enable the separation of high-purity plastic waste with low contaminant content, which is then used as raw material in Chemcycle's waste plastic recovery system.

### Modular Waste Plastic Recovery Unit

Chemcycle waste plastic recovery unit is designed with multiple modular skids. The processing capacity of the unit is 25 tons per day of waste plastic input, which yields the following:

- Process Gas: 15%
- Synthetic crude oil: 60-65% (depending on purity of raw material)
- Residue coal: 25% (sold or use as solid fuel)

The process works at a temperature of 420°C and less than 1 bar pressure. Non-condensable gas is produced in surplus and is used as the process heating fuel; no external fuel is needed for heating once the plant is in operation.



Synthetic crude oil of very low sulfur content is the main product, which can be used as fuel in power generators or sold as feedstock to petroleum and petrochemical refineries. Residual coal powder has a high heating value and is applicable as a low sulfur coal substitute.

One 25-ton-per-day module consists of three units of 40-foot container-sized skids with a total footprint of 90m<sup>2</sup>, excluding raw material and product storage space. Additional modules can be added to increase production capacity without interference from the current unit.