THE FUTURE OF PLASTIC RECYCLING

The future of the plastic recycling market will mostly be a combination of mechanical recycling, depolymerization, and pyrolysis. Waste availability will determine which becomes dominant.

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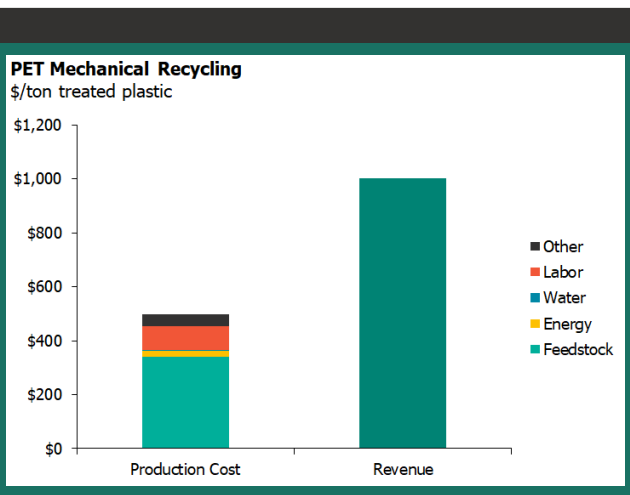
IMPACTED INDUSTRIES

- Chemical & Material Companies
- Government Entities
- Recyclers
- Consumer Facing Brands
- Investors

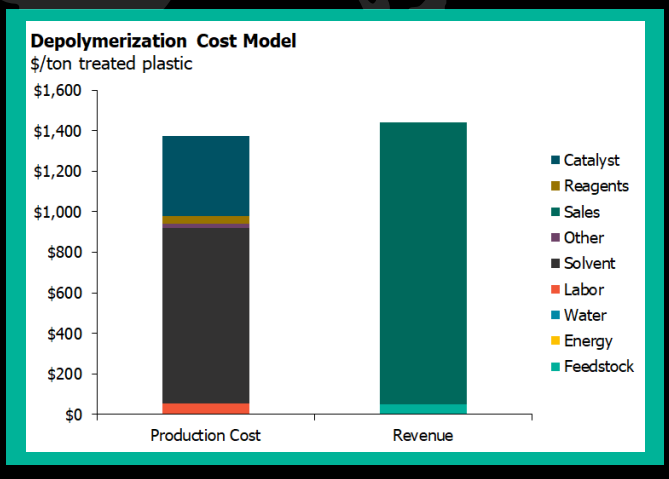
MECHANICAL RECYCLING

The incumbent recycling process; cheap and simple, but struggles with mixed or contaminated waste

45% of world's demand for plastic scraps has disappeared with China's waste ban



Low-cost process means profitability is heavily dependent on scrap and recycled pellet prices



High-cost process that relies on low or negative feedstock prices to produce high-value products

DEPOLYMERIZATION

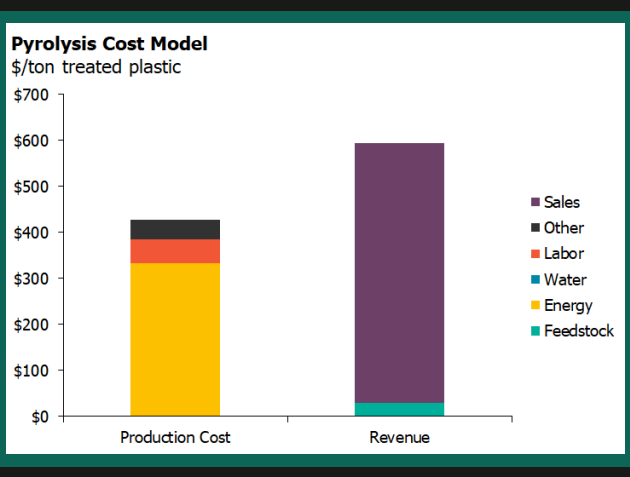
Can convert any quality PET waste to virgin-quality monomer precursors; more expensive than mechanical

almost **3x** of the cost of mechanical recycling

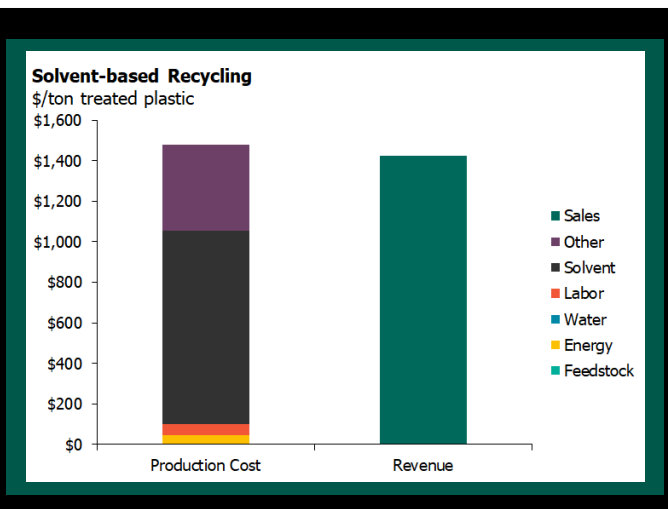
PYROLYSIS

An energy-intensive process requiring economies of scale that can address mixed plastic waste streams

1 ton of non-recyclable plastic waste = **4.2 barrels** of pyrolysis oil



Energy costs represent the largest percentage of production costs



Costs are highliy dependent on solvent prices

SOLVENT-BASED RECYCLING

Can address mixed plastic waste streams, but contamination issues have limited it to postindustrial waste

uses **0%** post-consumer waste

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