Agilyx uses patented, proven, and commercially viable technology to convert difficult-to-recycle waste plastics into chemical commodities through a process that is scalable, versatile, and environmentally positive.
“At least 80 percent of ocean plastic comes from land-based sources, but the actual number is probably much higher.”

“Three-fourths of land-sourced ocean plastic comes from uncollected waste or litter, while the remainder comes from gaps in the collection system itself.”

“Low-residual-value plastic waste is more likely to leak than high-value plastic.”

“While all countries with coast access contribute to the ocean plastics problem, over half of the material leaked into the ocean comes from five rapidly developing countries where production and consumption of plastics is outpacing local waste management capacity – China, Indonesia, Philippines, Vietnam, and Thailand, in order of magnitude.”
Material Flow

Generation
- Waste Generation
  - Commercial
  - Residential
  - Post Industrial Sourcing

Processing
- Final Waste Disposal
  - Landfill, incineration
- Recycling
  - Material Recovery & Processing

Recovery
- Traditional Material Markets for Recyclables
  - Cardboard
  - Glass
  - Plastics
  - Metal
  - Aluminum
  - Paper
- Alternative Markets
  - Plastic-to-Oil
  - PS-to-Chemicals
  - Transportation Fuel
  - Styrene Monomer
  - Toluene
  - Benzene
  - Other
Product Options

Mixed Plastic to Crude Oil

- High quality, low-sulphur TSCA registered oil that is ready to be refined into drop-in fuel
- 68% Yield
- Existing Supply Agreements with Refineries
  - Monroe Energy
  - US Oil and Refining
  - >5:1 energy output to input ratio

Polystyrene to Styrene Monomer

- High quality, industrial-grade Styrene that is ready to be dropped into existing styrene or polystyrene manufacturing facilities
- 81% Yield
Difficult-to-Recycle Waste Plastic Examples

Mechanical vs. Chemical Recycling

- Aluminum Wire Chop
- Medical Red Bag Sharps
- Film Packaging
- Melt Densified XPS
- Field Turf
- Energy Bag
How do we achieve the **circular economy**

- **Sourcing** – sufficient supply for a commercial-scale manufacturing facility

- **Technology** – optimizing the process to maximize yield and styrene content

- **Offtake** – identifying customers for a unique product

- **Regulatory** – regulatory framework specific to conversion technologies is often not in place and is needed for success
Recovering Polystyrene from Waste

Sufficient supply for a commercial-scale manufacturing facility

- **Availability/Accessibility** of polystyrene feedstock
- **Municipal collection programs**
- **Sorting infrastructure**
- **Cost** of feedstock and transportation
- **Commitment** – long-term feedstock agreement
Optimizing the process to maximize yield and styrene content

- **Pyrolysis** of polystyrene to produce styrene monomer
- Understanding the **waste stream**
- **Copolymers** of polystyrene
- Plastic and non-plastic **contamination**
- **Successful** processing through 10 TPD facility
Identifying customers for a **unique** product

• **Collaboration** with styrene and polystyrene producers

• **Product qualification**

• **Commitment** – long-term offtake agreement
Products Manufactured

Agilyx styrene conversion process

• Provides a recovery solution for difficult-to-recycle waste polystyrene

• Produces a styrene raw material that can be used to manufacture the same products from which it was created
Agilyx History

Who We Are: The global leading provider of waste plastic pyrolysis systems
What We Do: Provide technology to convert waste plastics into synthetic oil, styrene, or specialty chemicals
Corporate HQ: Tigard, Oregon, USA; 25 employees
Patent and Patent Pending Protected
Mature Technology: Shipped 800,000+ gallons of Agilyx Synthetic Crude Oil (ASCO)
Produced Agilyx Styrene monomer from Polystyrene at Tigard Plant
7904 Hunziker St.
Tigard, OR 97223
(503) 217-3160
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