

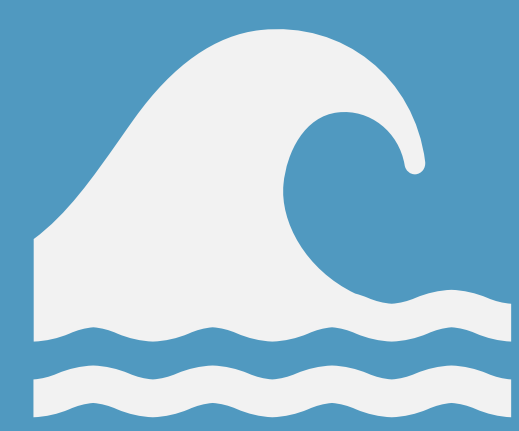
Abstract

Single use plastics invented in the 1950's has created one of the most detrimental global environmental crises through oceanic pollution. Our project addresses the issue of global ocean plastic pollution and suggests methods for recovering, sorting, and processing ocean plastic using catalytic pyrolysis. Using data collected from this study, such as the estimated amount of plastic that currently resides in the ocean, we developed a business model based on selling products manufactured from ocean sourced plastic.

Goal

Long Term: Eventually remove all the plastic from the ocean

Short Term: Turn 100,000 tons of plastic per year into profit, from selling oil and carbon black.



Solution

- Our solution to this problem is to use a process called Catalytic Pyrolysis

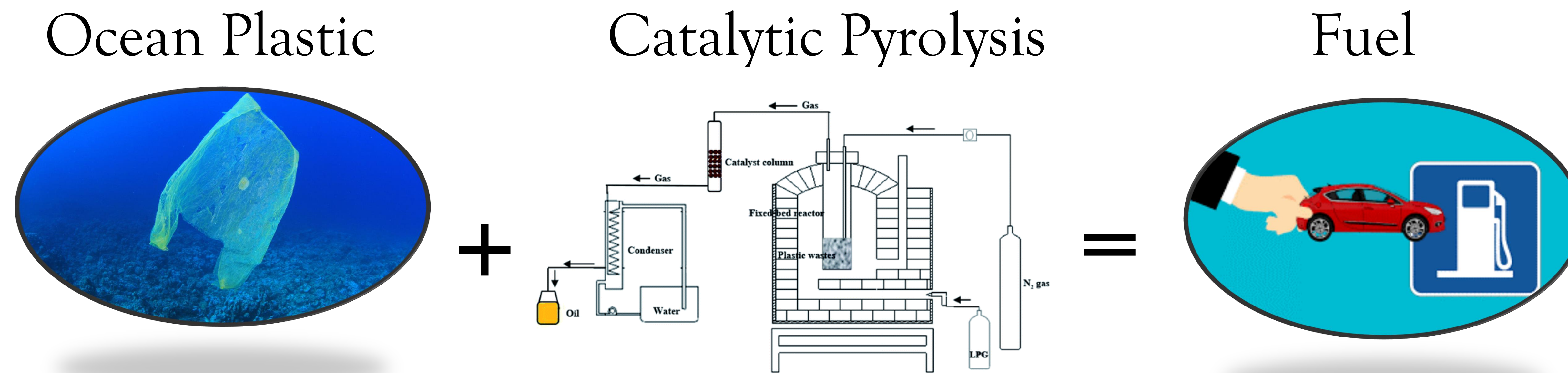
- Catalytic Pyrolysis converts plastic to oil and carbon black

-The clean diesel produced has a greater efficiency and carbon emission rating than regular diesel

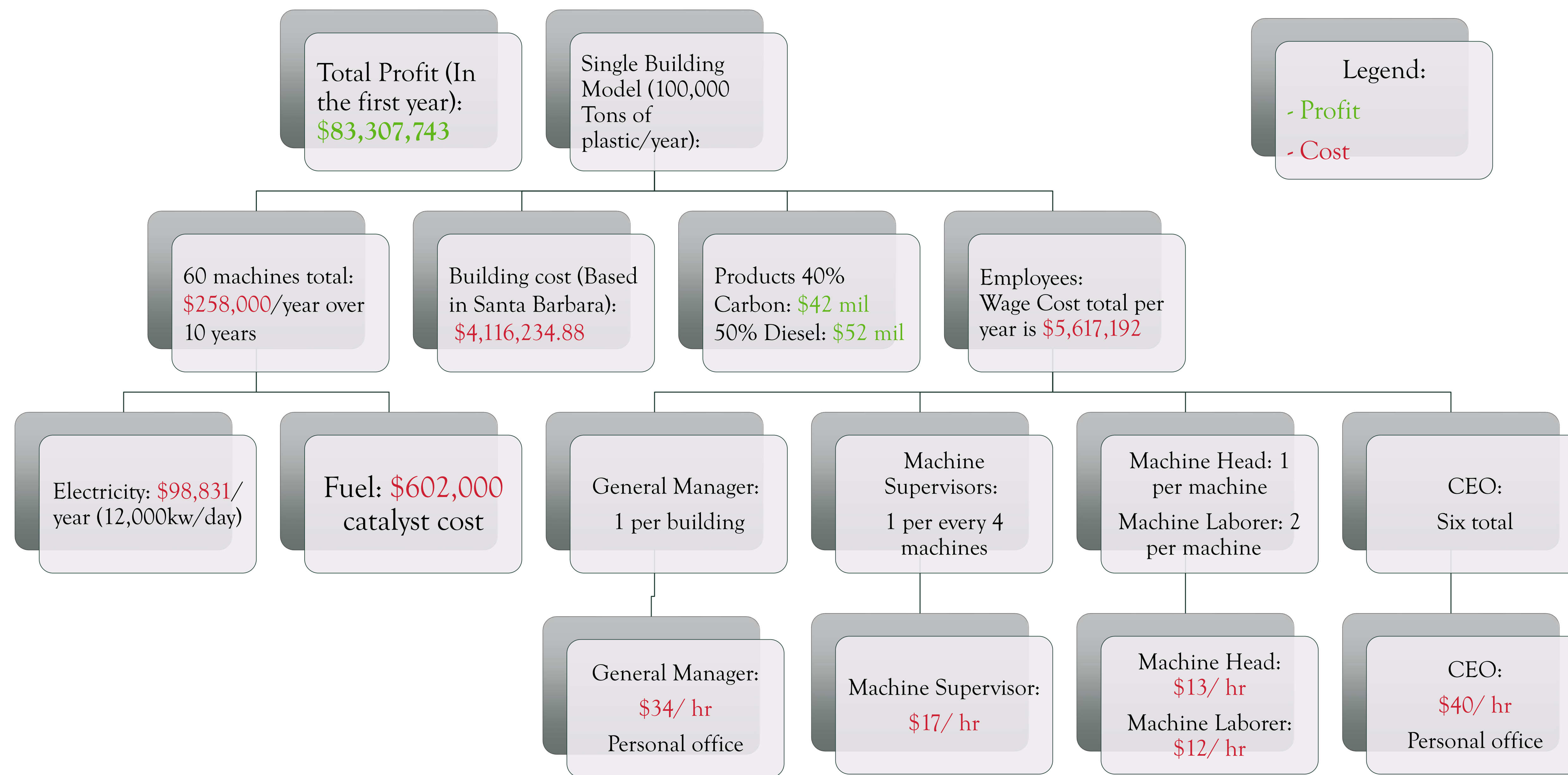
Problem Statement

With over **270 million tons of plastic** inside of our ocean and **8 million tons** accumulating each year, complex ecosystems are collapsing, and people's safety and health are being put at risk.
What can be done to help solve this?

Our Solution



Business Model

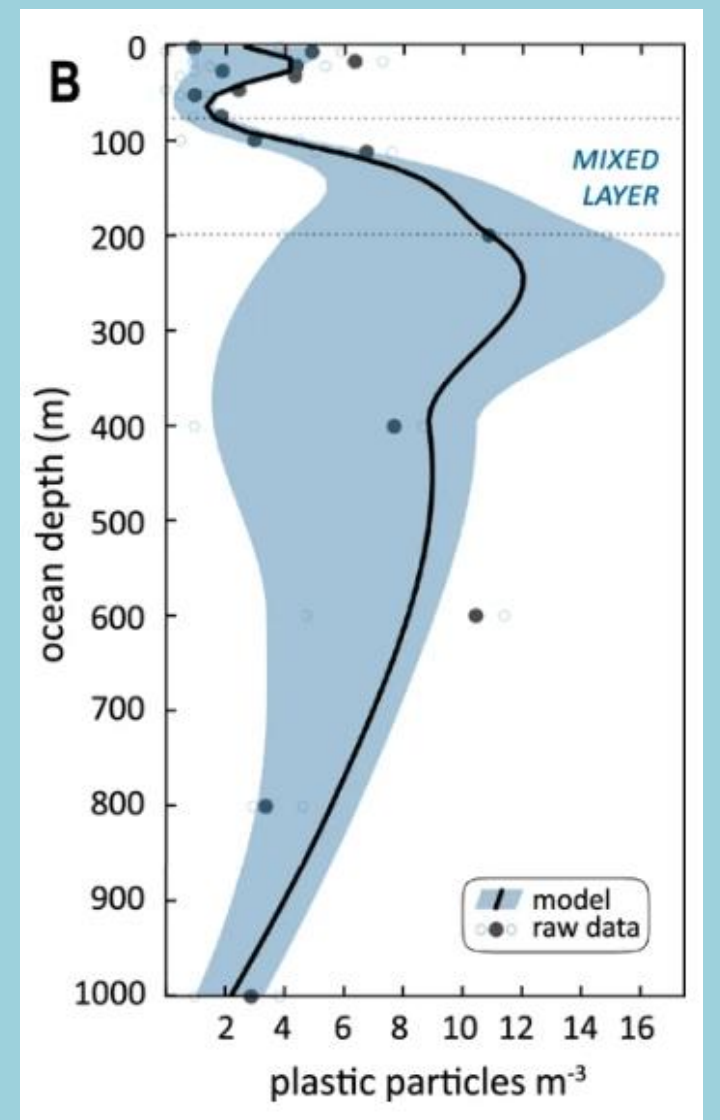


What's Next

- The next part of our plan is to implement our business model on a larger scale. We want to increase our production value to 200,000 tons and eventually, enough to clean our oceans.

Analysis

- 1% plastic floating on the ocean surface
- 90% of U.S. seafood is sourced from polluted areas
- 500 Buildings could process the Ocean's Plastic in 7 years
- \$83 Million in profit per year



Financial Projections

- The overall process has a high return on investment, with a \$17 million starting payment and yielding \$83 million in the first year. This facility can be reproduced multiple times to process more tons of plastic per year.



Sources

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