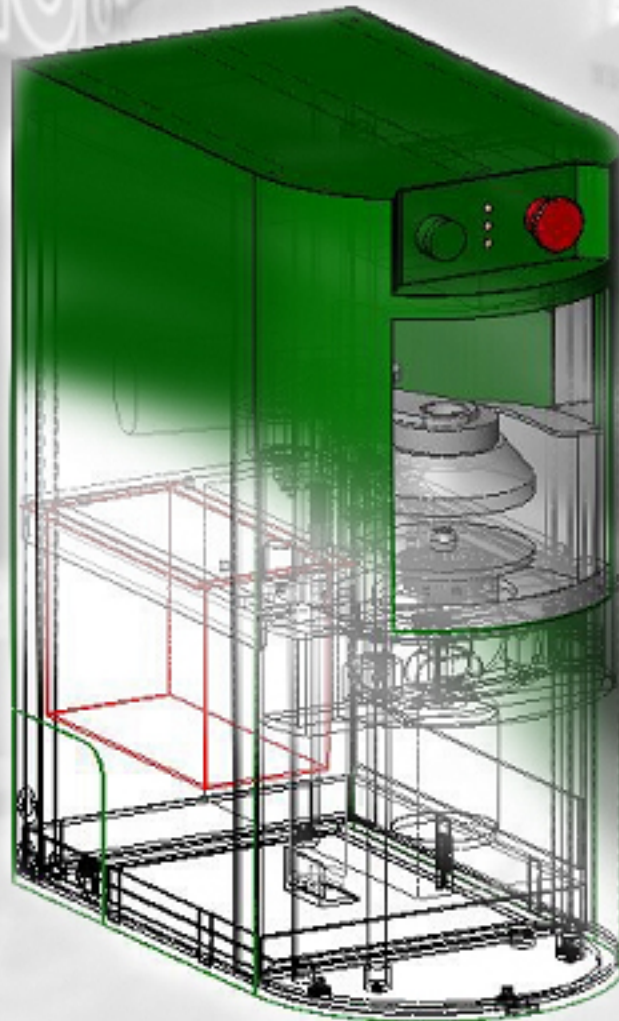


CYCLOS

Oil Filter Cleaner



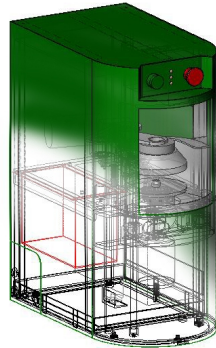
Green Team

Overview

Problem



Product



Market

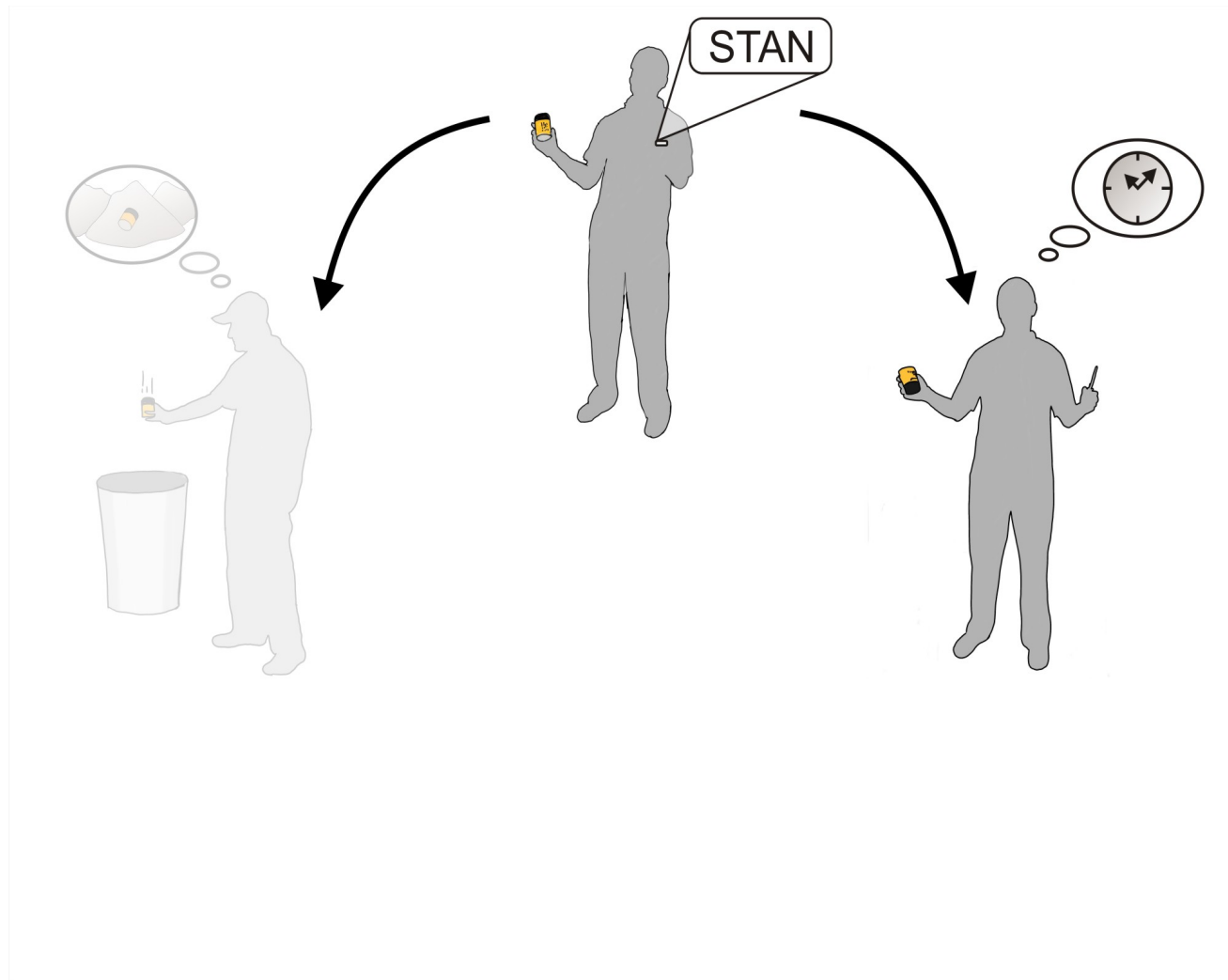


Summary



CYCLOS

Stan's Dilemma



Oil Filters and the Environment

1



8 oz

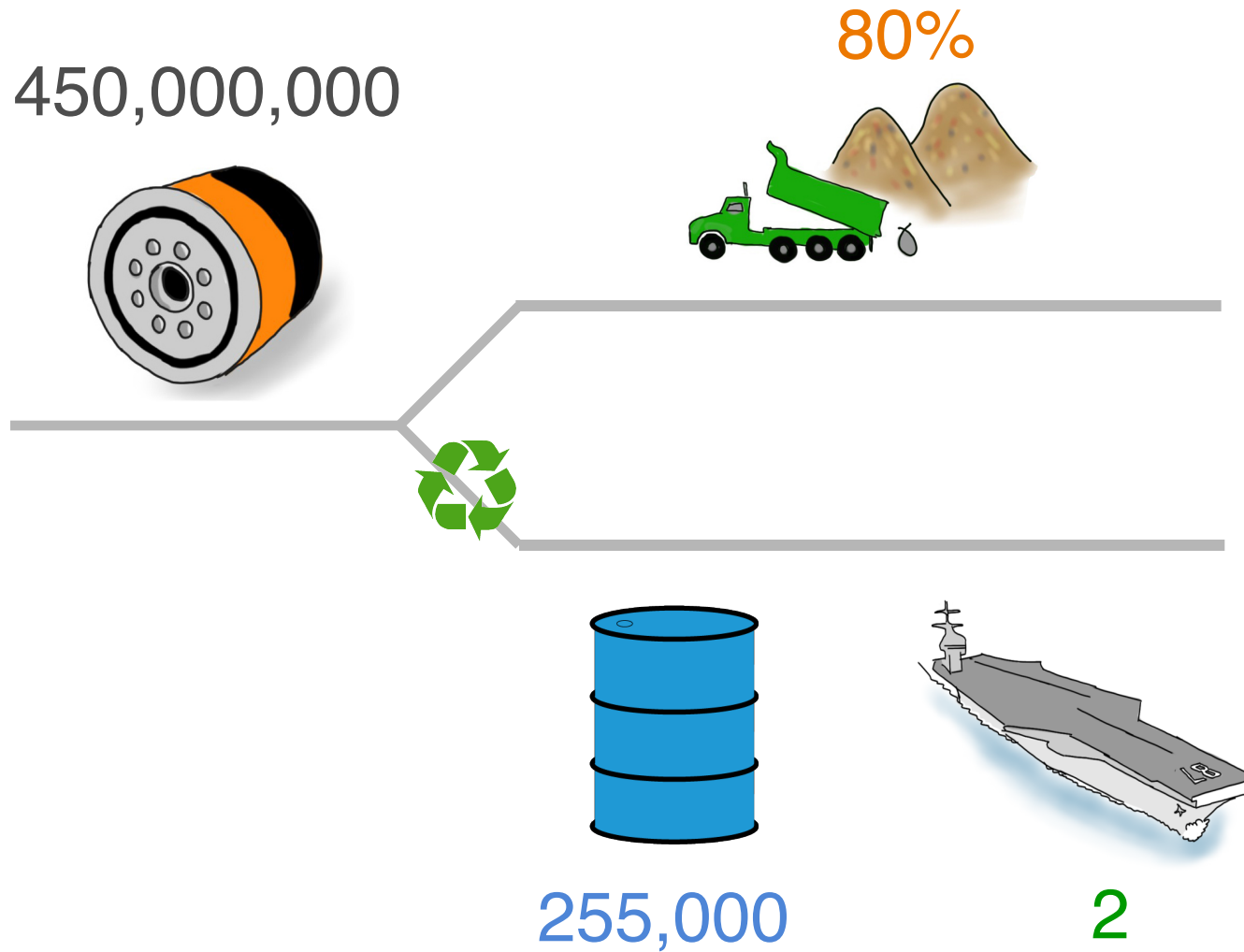


62,000 Gal



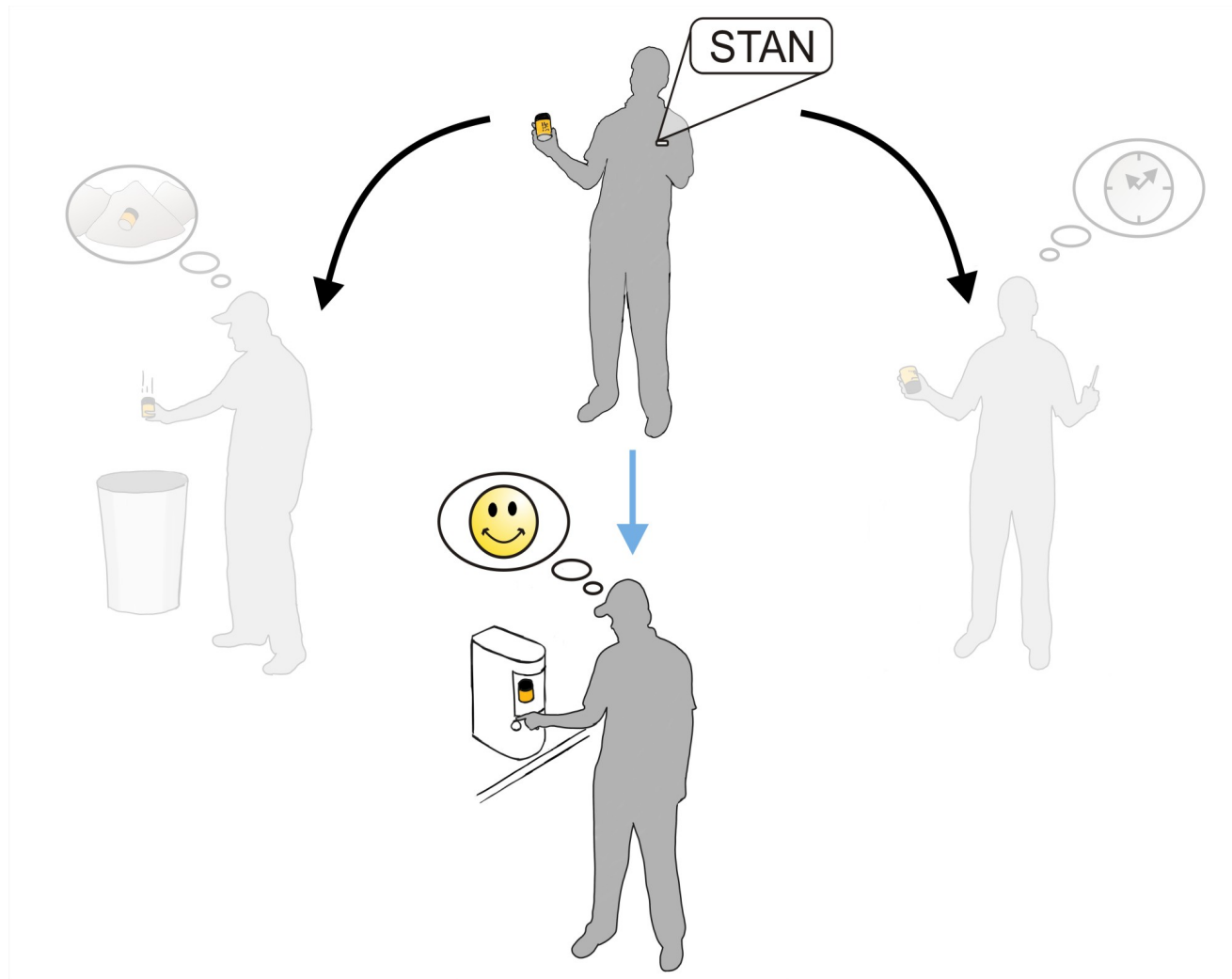
CYCLOS

Oil Filters and the Environment



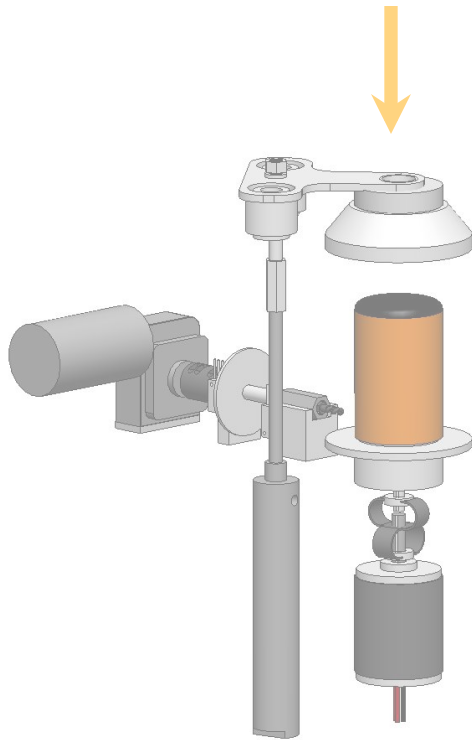
CYCLOS

Stan's Dilemma

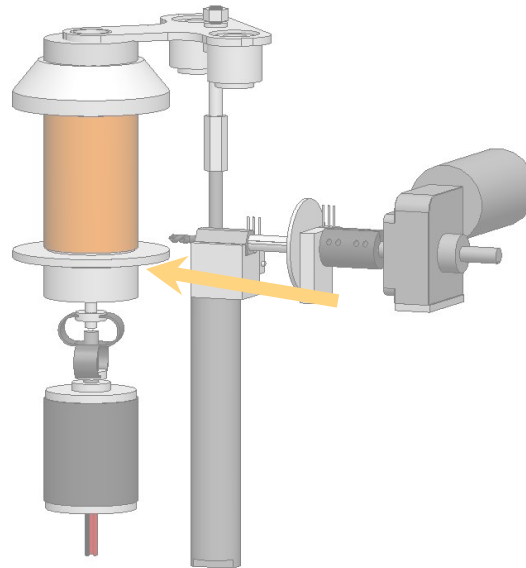


CYCLOS

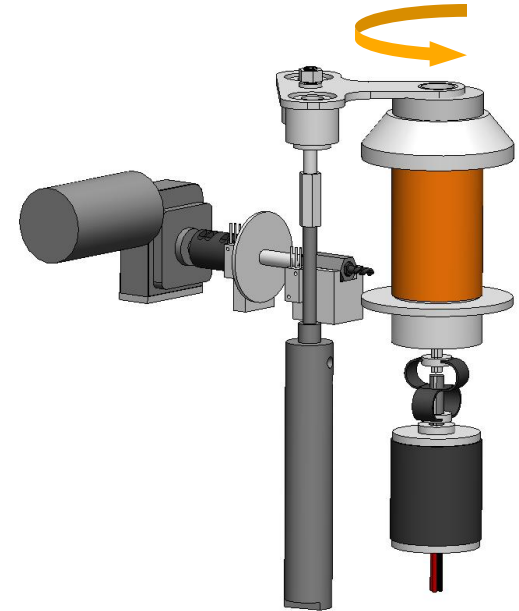
How Cyclos Works



1. Clamp



2. Make Holes



3. Spin

CYCLOS

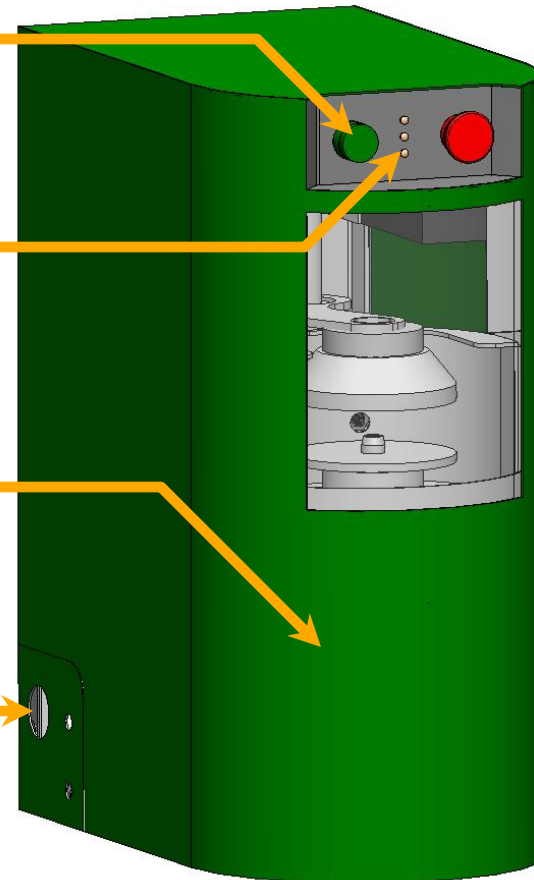
User Features

One Button Operation

Indicator LEDs

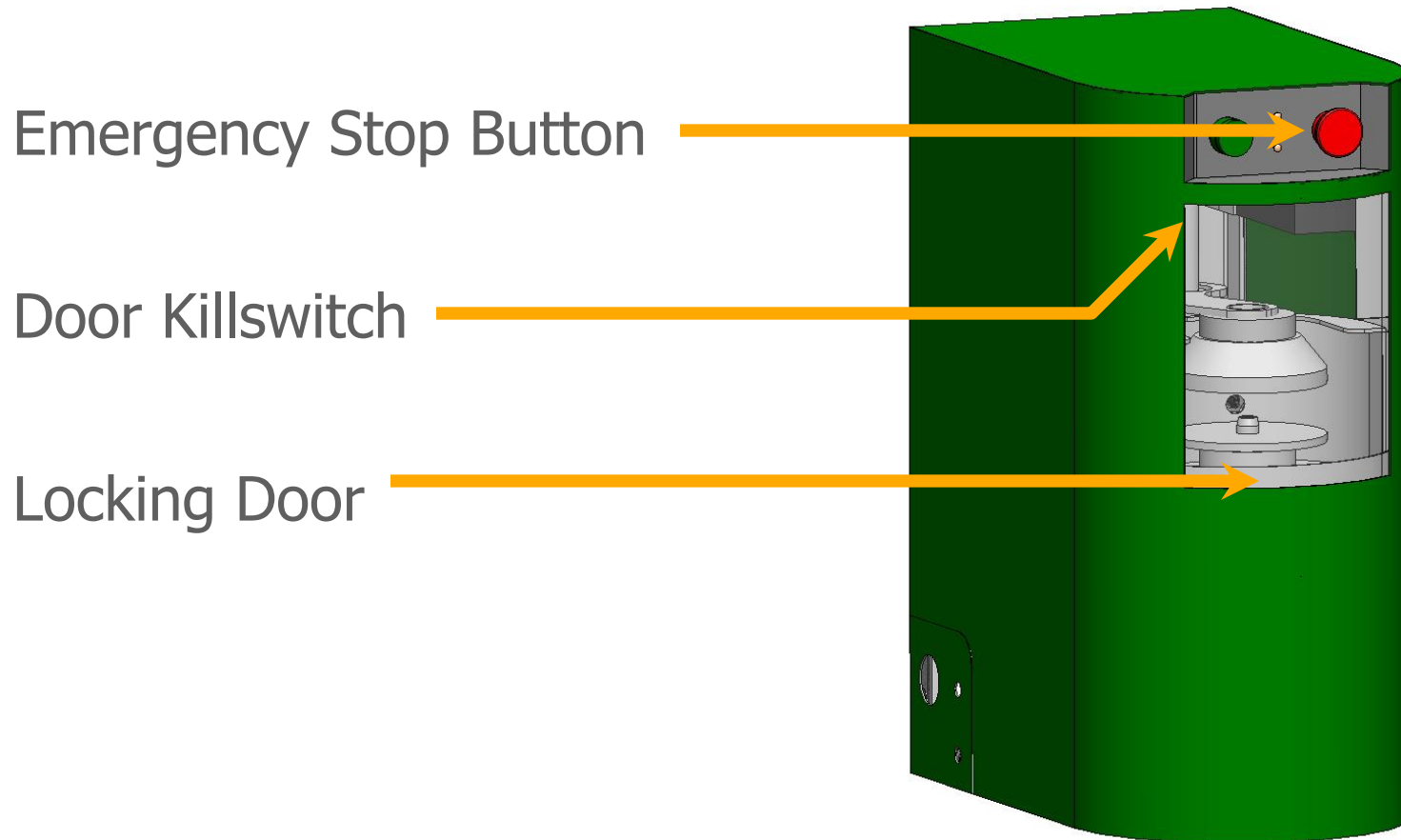
Front Cover Slides Off

Power and Hose
Connections



CYCLOS

Safety Features



CYCLOS

Superior Performance

Gravity Drain



50%



24:00

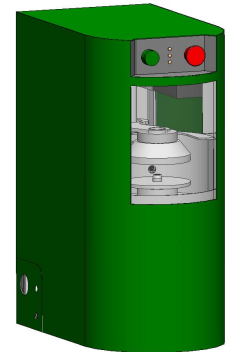
CYCLOS



80%

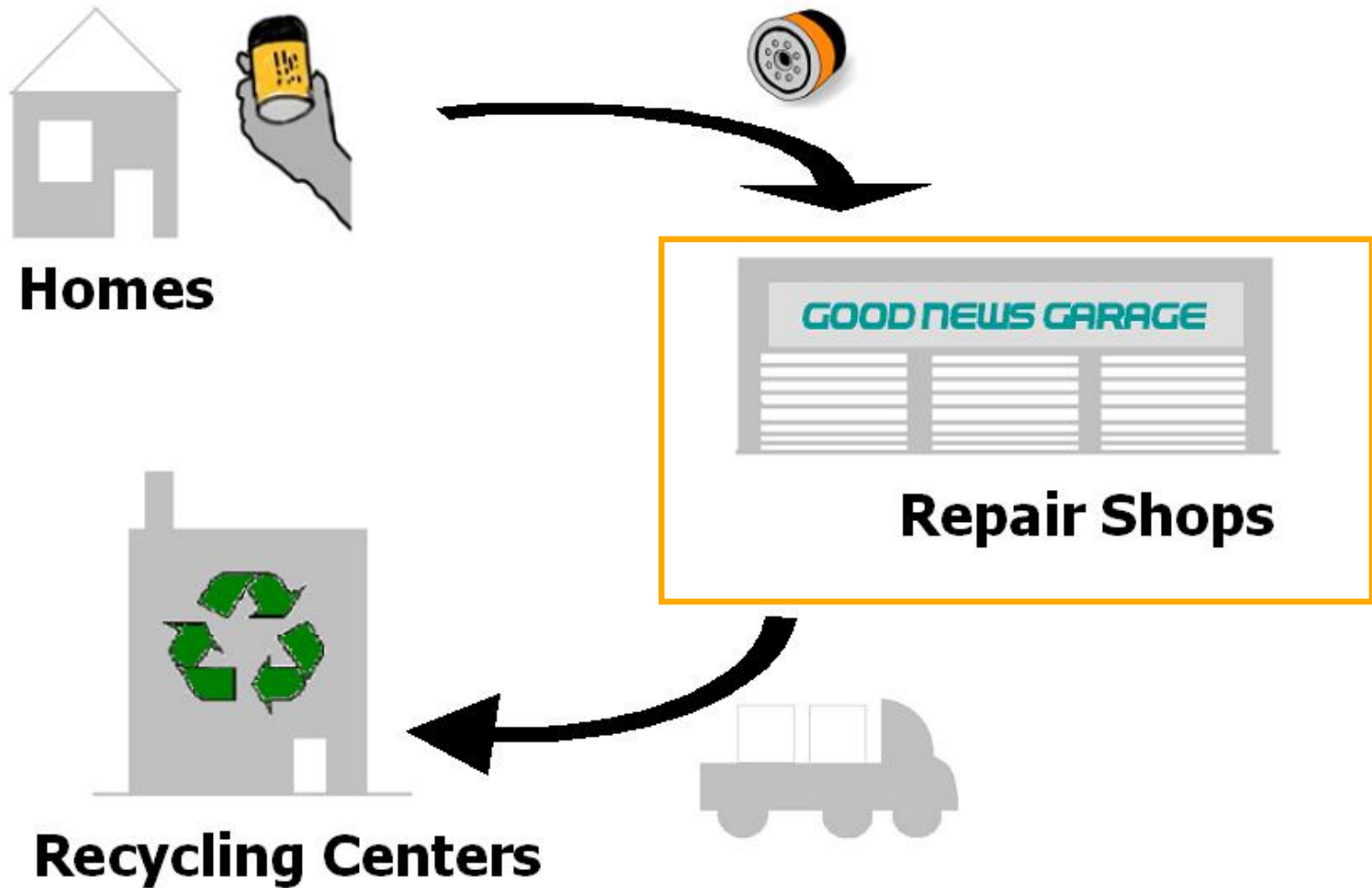


00:02



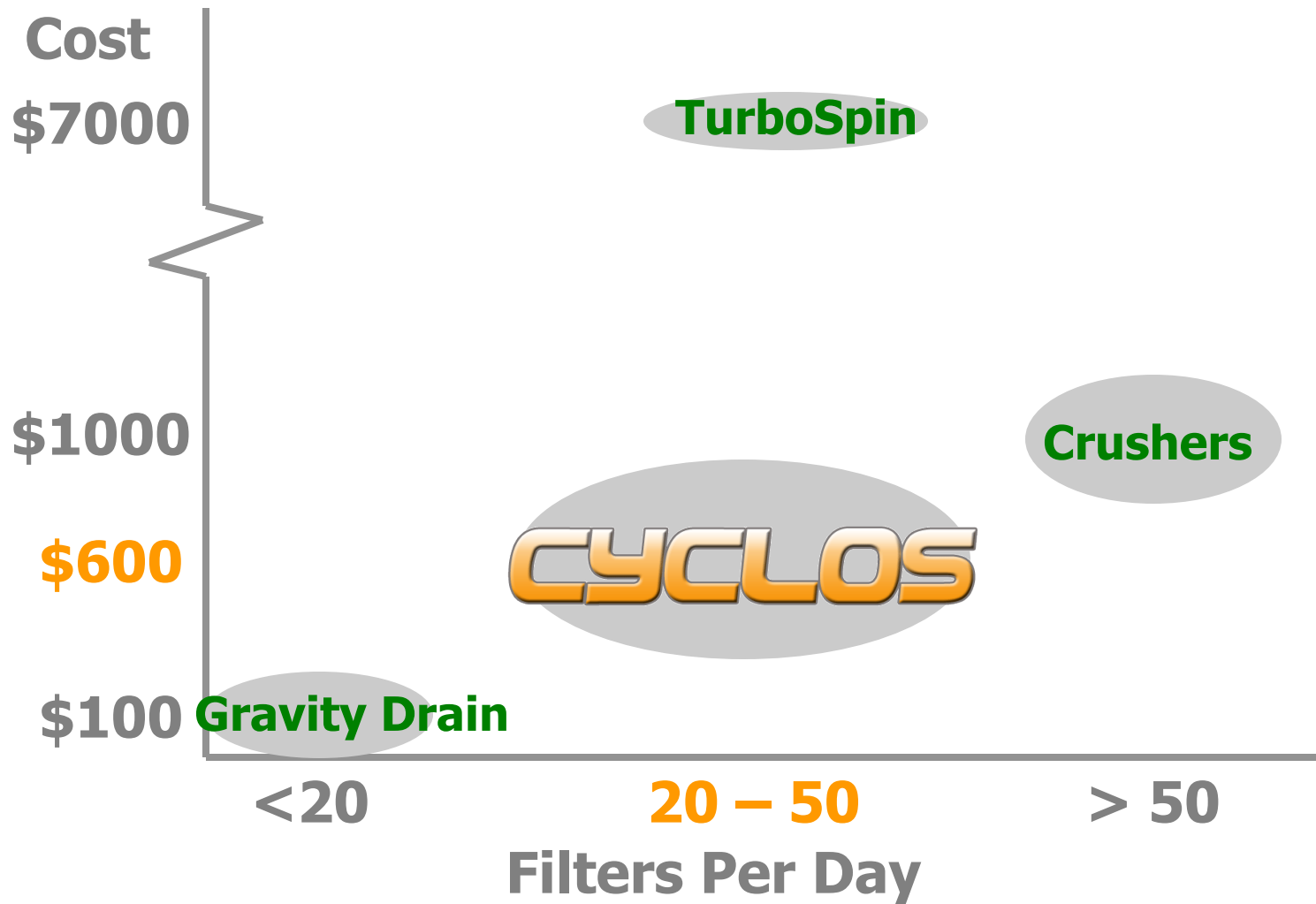
CYCLOS

The Market



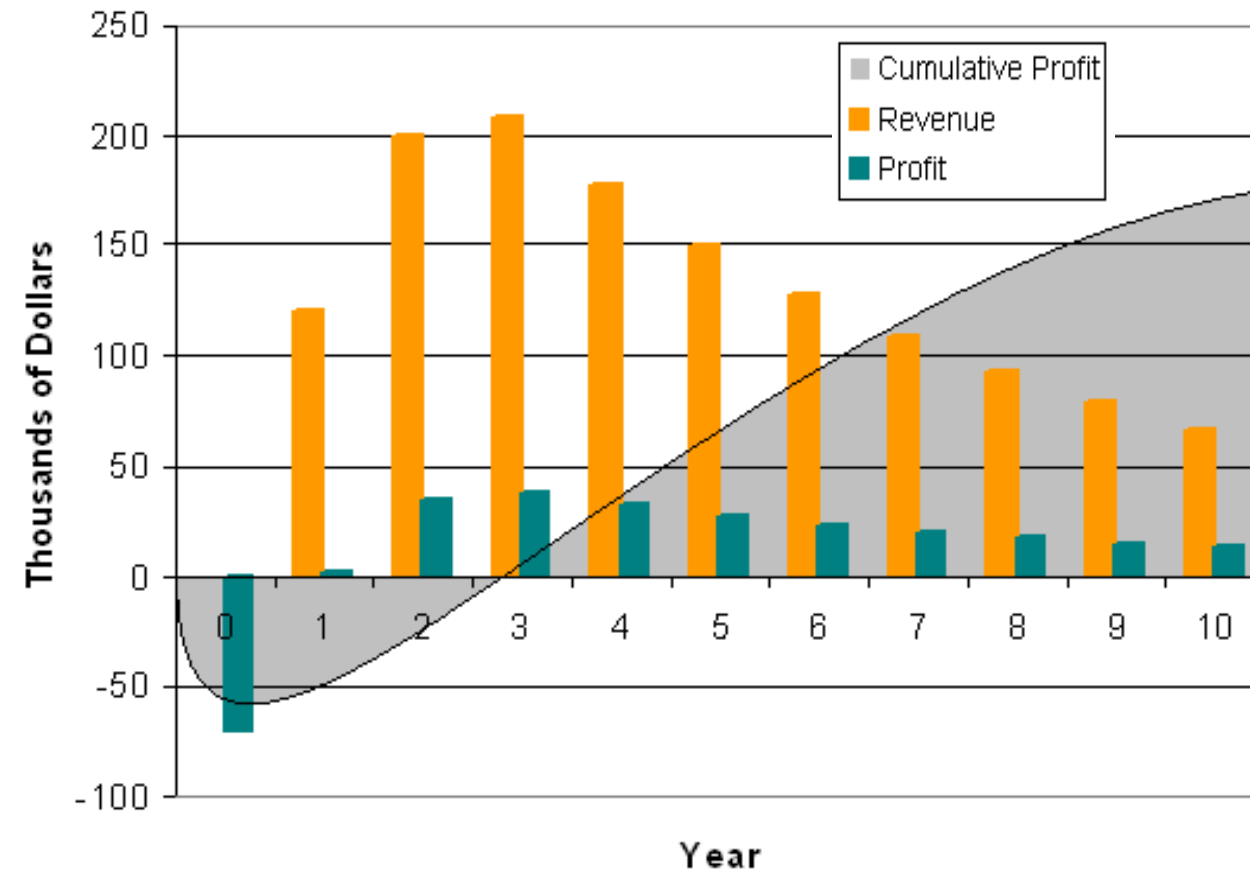
CYCLOS

Competition



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Business Model



1000 machines/
year

Manufacturing
cost: \$280

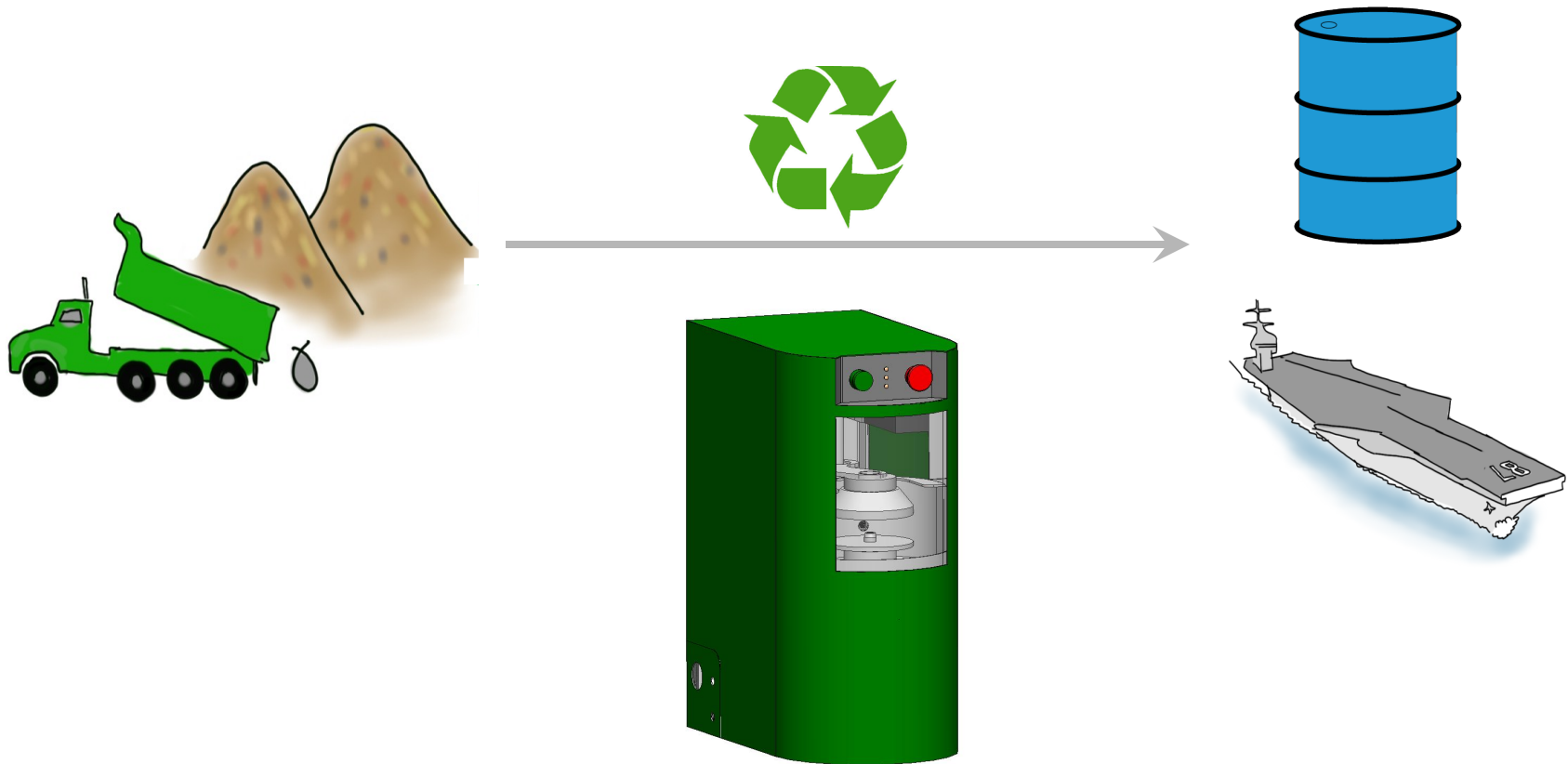
Selling price:
\$600

15% discount rate

30% ROI

CYCLOS

Summary



CYCLOS

Thank you

Prof. Wallace

Bobby Dyer

Matt Duplessie

Prof. Vandiver

David Custer

Ethan Crumlin

Pappalardo Staff

Ray Magliozzi and Craig Lavallo of Good
News Garage

Questions?



CYCLOS

Supplementary Materials

Environmental Impact

- Over **450 million** oil filters are manufactured each year in the US.
- **80%** disposed of in landfills.
- EPA requires that oil filters are **70%** drained for recycling
- Wastes **25.5 million gallons** of recyclable oil and **230 thousand tons** of steel.
- 8 oz of oil can contaminate **62,000 gallons** of drinking water, enough to fill a community swimming pool.
- 42 gallons of crude oil to produce **2.5 quarts** of lubricant; 1 gallon of used oil to produce the same amount.

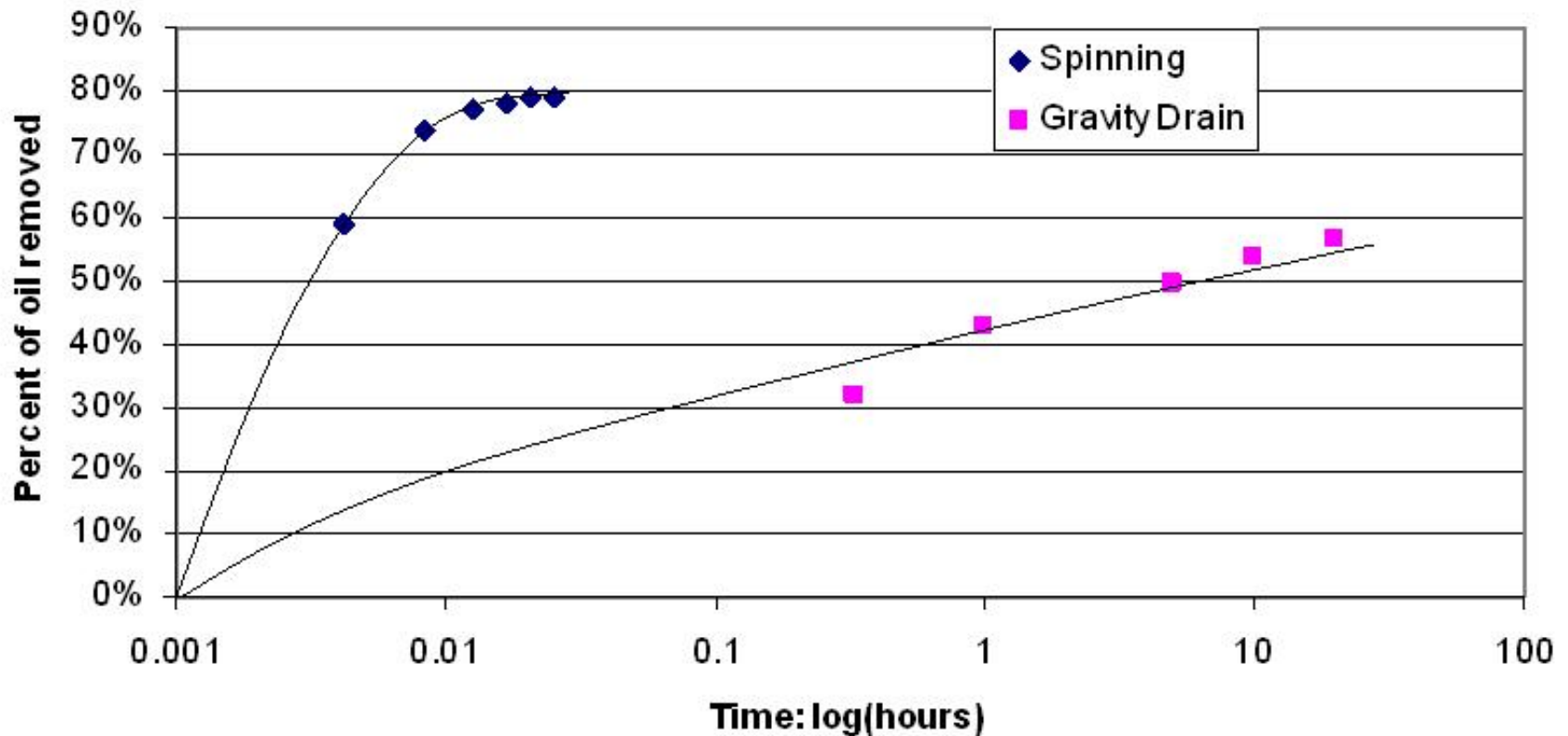
Why is the Cyclos more efficient?

- Spinning around the axis → Shorter distance for the oil to travel
- Optimal hole locations and puncturing method



CYCLOS

Fast and Efficient Drainage



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Punching Tests



CYCLOS

Manufacturing Cost: \$280

Component	Cost			
	Materials	Processing	Assembly	Total
PUNCHING	\$ 7.50	\$ 0.45	\$ 0.50	\$ 8.45
GRIPPING/SPINNING	\$ 40.00	\$ 11.00	\$ 2.60	\$ 53.60
STRUCTURE	\$ 54.53	\$ 22.51	\$ 18.61	\$ 99.15
CONTROLS	\$ 27.75	\$ 1.00	\$ 1.20	\$ 29.95
MISC	\$ 4.50	\$ 5.00	\$ 1.00	\$ 10.50
Direct Costs	\$ 129.78	\$ 39.96	\$ 23.91	\$ 201.65
Overhead	\$ 51.91	\$ 15.98	\$ 9.56	\$ 80.66
Total Cost	\$181.69	\$ 55.94	\$ 33.47	\$282.31

Manufacturing costs based on production of 1000 machines a year

- 10 year product life; 400,000 small to medium repair shops;
25% market share

CYCLOS

Benefits for Clients

- Financial
 - Lower filter pickup costs for non-hazardous material
 - Value of Oil
- Environmental
 - Reduce oil pollution
 - Recycle steel
- Other
 - Reduce disposal time
 - Avoid fines

Customers

- Repair shop contacts
 - Sullivan Tires and Good News Garage burn used oil for heat
 - Others have recycling companies that pick up used oil
 - This product would leave our garage less vulnerable to EPA fines for improper disposal of hazardous waster.
-Ray Magliozzi, Good News Garage
- Recycling center contacts:
 - “Very cool machine.”
- Peter Pasquier, Director of Waste Services, Marketing at Safety-Kleen
 - “...there is a need for this product....to capture a higher percentage of the oil and do it quicker.”
-Wayne, SaveThatStuff

CYCLOS