An introduction to a green, recycling, renewable resources business
Introduction……

Ron Simonetti  
CEO and Founder MCR, LLC  

20 years Industry experience  
recycling foam/carpet, chemicals, plastics, franchise, management, international business  

Global supply chain consultant, Foamex Carpet Cushion, ChemConnect.com, GE Plastics, DuPont  

B.S. Chemical Engineering West Virginia  
MBA Drexel
Company History.....

- Recycling – foam and carpet - WTE
- CARE 2007 - technology
- MCR was incorporated in June 2007
- MCR exclusively licensed Auburn University patent (US Patent 5,994,417) for recovering polymers from commingled materials July 2007
- Initiated process engineering December 2007
- Funded business with private equity June 2008
- Developed complimentary IP and pending patents Q4
- Pilot plant completed May 2009
- First commercial plant July – Sept. 2009
Waste Carpet: Problem, Opportunity, Solution

- **MCR Mission Statement**

  To become the **leading company** in **carpet recycling** solutions to provide plants using **patented clean technology** for efficient **regional processing** of used carpets and **market channels** for recovered products.

- **Our Products**
  - Renewlon™ - recycled nylon
  - Renewlene™ - recycled pp from backing/carpet
  - Renewtex™ - recycled backing

- **The MCR Solution: Long-term goals**
  - Build, operate and partner to run 10-20 plants
  - Recycle 1 billion PPY nylon carpet avoiding landfill
  - 20% diversion of US carpet and 10% globally
Current status of waste carpet recycling
Competitive Offerings

**ONLY RECYCLING 300 MILLION PPY INDUSTRY WIDE**
**LESS THAN 10% OF DISCARDS!**

*WHY so low vs. 25% Bottles, Al cans 60% ?????*
How MCR will change the Industry?

Regional Recovery Plants near large metropolitan areas
Waste Carpet Supply Chain

• Value Proposition
  - Buying separated baled material
  - No significant outlets for nylon 6,6
  - Current market imbalance with large amounts of nylon 6 going to Shaw

• Supplier Targets
  - CARE Reclamation Network
  - Plastic Recyclers

Utilize existing CARE network collecting, identifying, baling, shipping and selling used carpet
Targeted HQ and Initial Operations
Delaware Valley

- 30,000,000 consumers within 150 mile radius
- Consuming 500,000,000 lbs of carpet per year – 10% of total
- Limited carpet recycling solutions in the region
- Great supply base north and south
- Can reach fiber, carpet and plastic customers
MCR Process
Waste Carpet to Pellet (WTP)

• Mechanical Purification Process (MPP)

• Fine Chemical Purification Process (FCPP) - Patented technology

• Extrude and Pelletization Process (EPP)
### MCR Renewlon™ 6 and 6,6 Comparative Data

<table>
<thead>
<tr>
<th>Physical Property</th>
<th>MCR Renewlon™ 6</th>
<th>BASF B27 Control</th>
<th>BASF B27 Reported</th>
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</thead>
<tbody>
<tr>
<td>Melting Point Glass Transition by DSC, ASTM D3418</td>
<td>219.4 °C</td>
<td>220.8 °C</td>
<td>220 °C</td>
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Indepedent Lab confirmed no significant difference in melting points.
Thermogravimetric (TGA) Scan

INDEPENDENT LAB CONFIRMED NO SIGNIFICANT CONTAMINATION PRESENT AND SIMILAR WEIGHT LOSS
Gel Permeation Chromatography (GPC) Overlay Scans

INDEPENDENT LAB CONFIRMED VIRTUALLY IDENTICAL MOLECULAR WEIGHT SCANS VS. VIRGIN NYLON
The Future……..

Mechanically Processed nylon carpet

Solvent 1 Tank

Acid/Nylon solution – Auburn Patent, Added Patents

PP, CaCO3/Latex, Dirt

Separation Process

Mechanically Processed PP Carpet

CaCO3/Latex, Dirt

Synthetic and Natural

Separation Process

Solvent/PP solution

PVC Latex/CaCO3, Dirt

SBR Latex/CaCO3, Dirt

Renewlon™

Renewlene™

Renewtex™

PATENT PORTFOLIO AND CUSTOMER STRATEGY DRIVE COMPANY VALUE AND ZERO WASTE