

# Modular Carpet Recycling, LLC (MCR)



An introduction to a **green, recycling,  
renewable resources business**

*This document is for information purposes only and  
is not intended as a solicitation to sell or buy any  
security.*

*MCR Confidential Information*



# 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



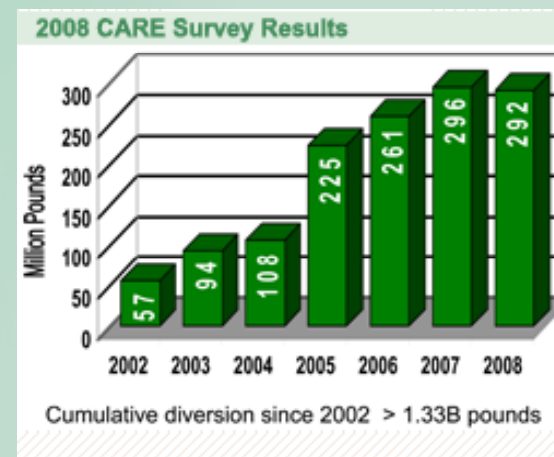
## Company History

- Recycling – foam and carpet - WTE
- CARE 2007 - technology
- MCR was incorporated in June 2007
- MCR exclusively licensed Auburn University patent\* 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 Q408
- Pilot plant completed June 2009
- First US commercial plant Q309
- First EU commercial plant 2010

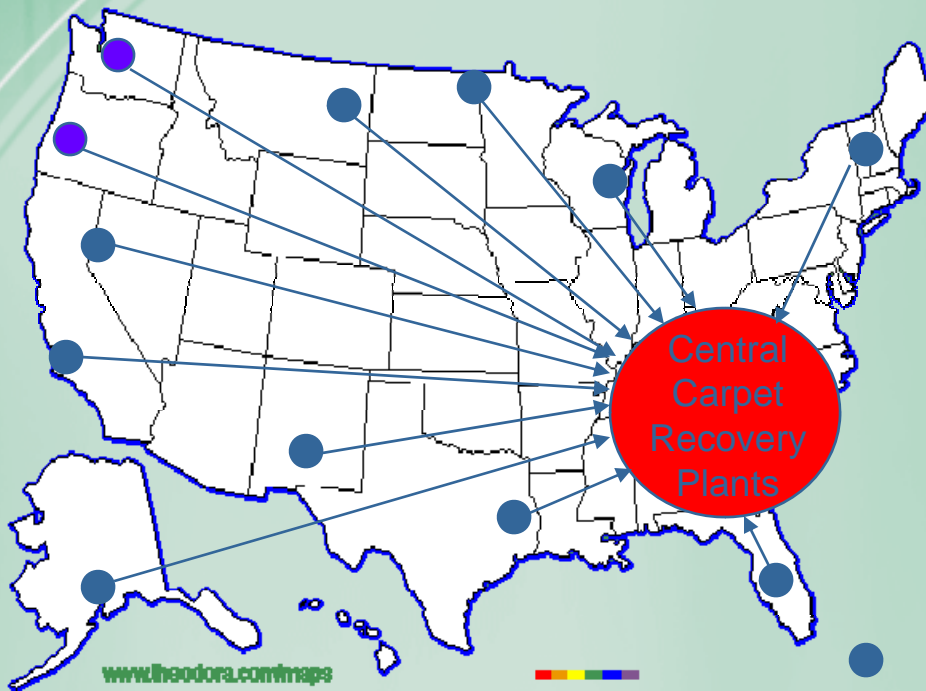
*\*(US Patent 5,994,417)*

## Waste Carpet is a Problem

- The HUGE Challenge
  - 10 billion lbs per year (PPY) waste carpet globally
    - 5 billion PPY sent to US landfills
    - 2.5 billion PPY sent to EU landfills
- The GREAT Opportunity: Carpet Recycling
  - Small % of carpets produced are currently recycled
    - 300 million PPY US and 50 million PPY EU
    - Industry goal is 30% of 1.5 billion PPY by 2012



# Current Waste Carpet Recycling Competitive Offerings



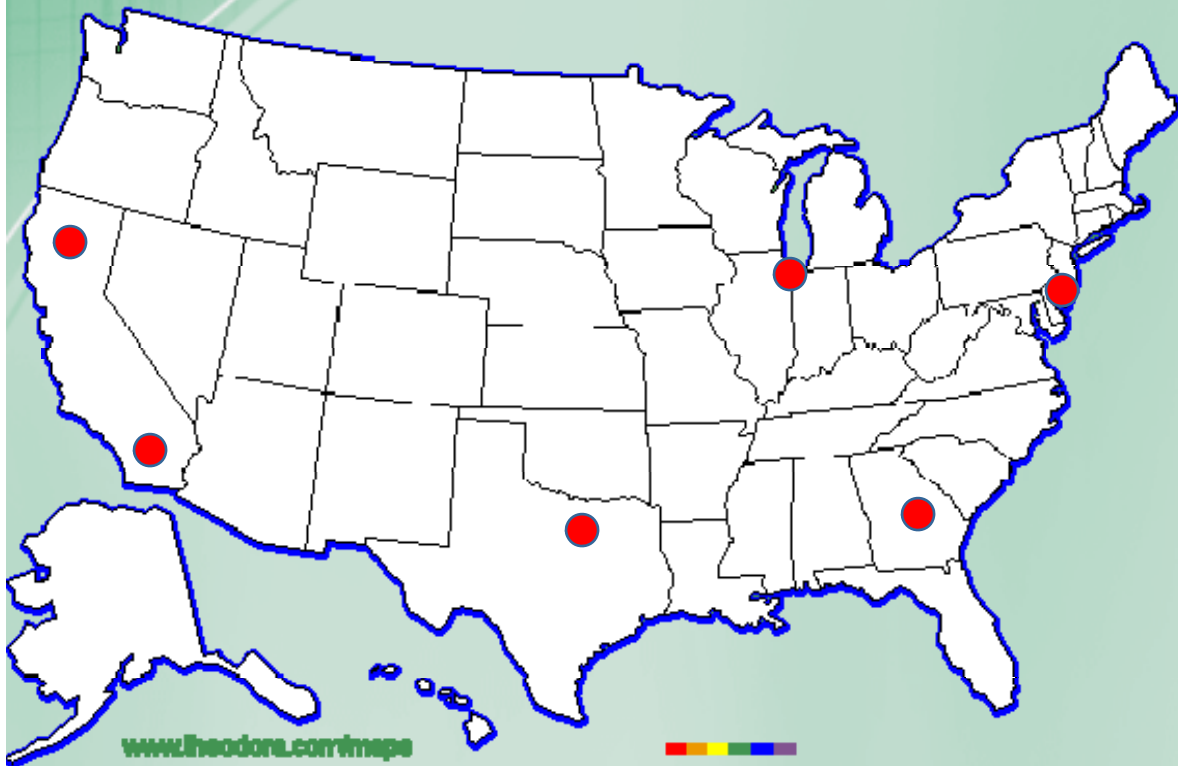
**RECYCLING 300 MILLION PPY INDUSTRY WIDE**

**DEPOLYMERIZING SHAW 100 mm PPY, SHAVING AND WTE**

**EU WTE PRIMARY OUTLET TO EASTERN EUROPE**

**WHY so low vs. 25% Bottles, Al cans 60%?????**

# How MCR will change the Industry?

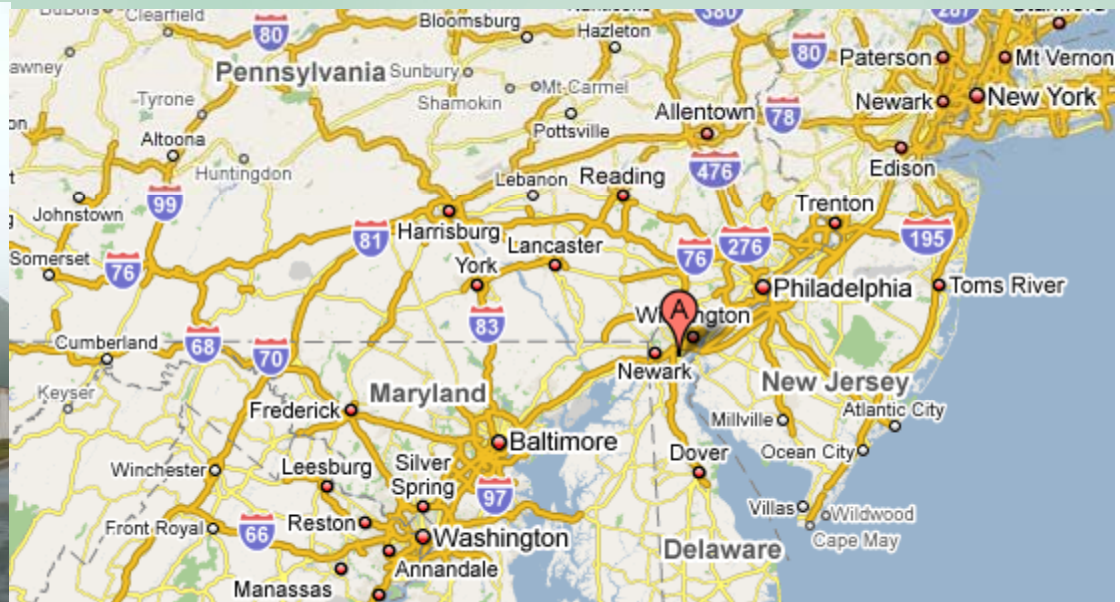


*Regional Recovery Plants near large metropolitan areas*



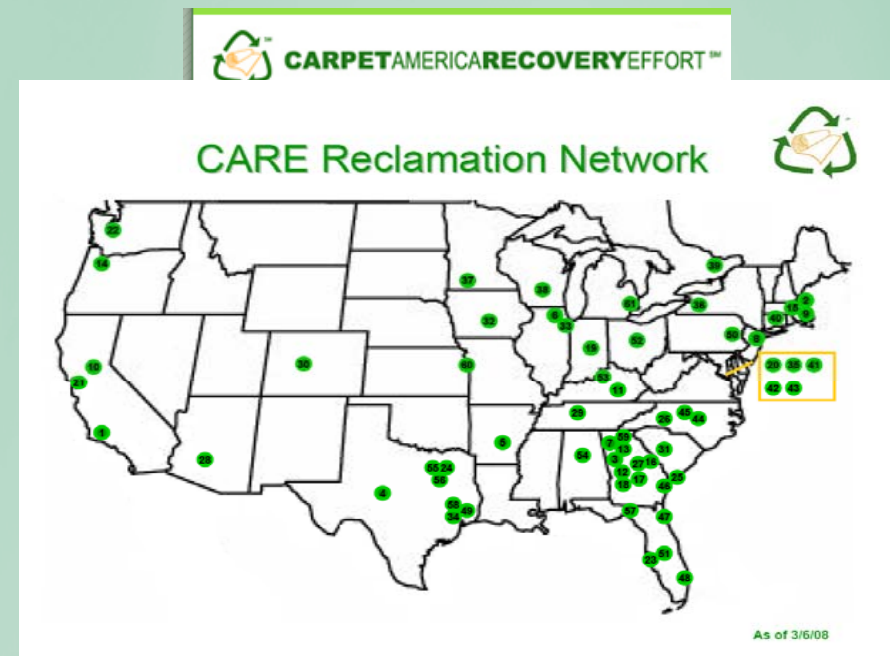
# Targeted HQ and Initial Operations Delaware Valley

- 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



# Waste Carpet Supply Chain

- Value Proposition
  - Buying separated or ground 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
  - EU recyclers and processors
  - Plastic Recyclers



**Utilize existing CARE network  
collecting, identifying, baling, shipping and selling used carpet**

# MCR "Refinery" Process Waste Carpet to Pellet (WTP)



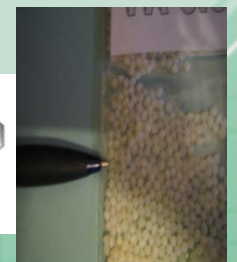
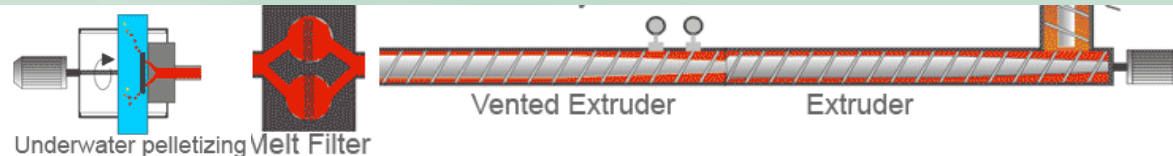
- Mechanical Purification Process (MPP)



- Fine Chemical Purification Process (FCPP) – Patented technology



- Extrude and Pelletization Process (EPP)





# MCR Process Product Data DSC



## MCR Renewlon™ 6 and 6,6 Comparative Data

Physical Property	MCR Renewlon™ 6	BASF B27 Control	BASF B27 Reported
Melting Point Glass Transition by DSC, ASTM D3418	219.4 C	220.8 C	220 C
Physical Property	MCR Renewlon™ 6,6	BASF A27 Control	BASF A27 Reported
Melting Point Glass Transition by DSC, ASTM D3418	256.3 C	260.5 C	260 C

***INDEPENDENT LAB CONFIRMED NO SIGNIFICANT  
DIFFERENCE IN MELTING POINTS***

# Thermogravimetric (TGA) Scan



Chart 3: MCR-14 is Renewlon™ 6,6 sample and Control

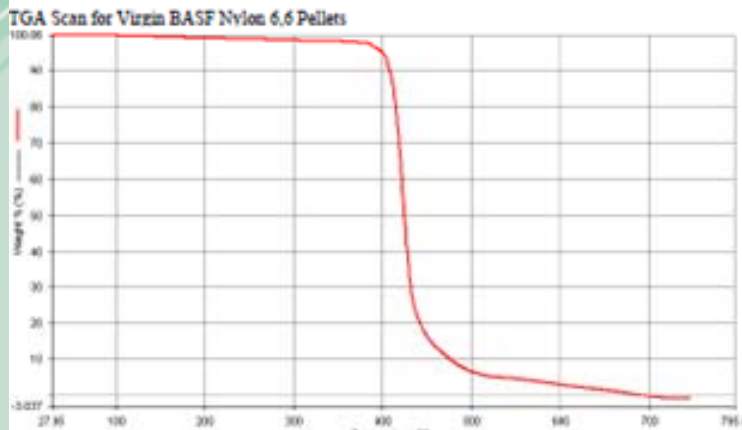
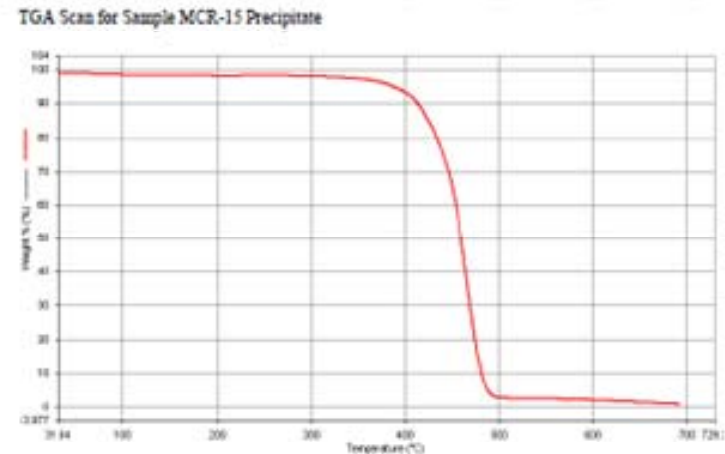
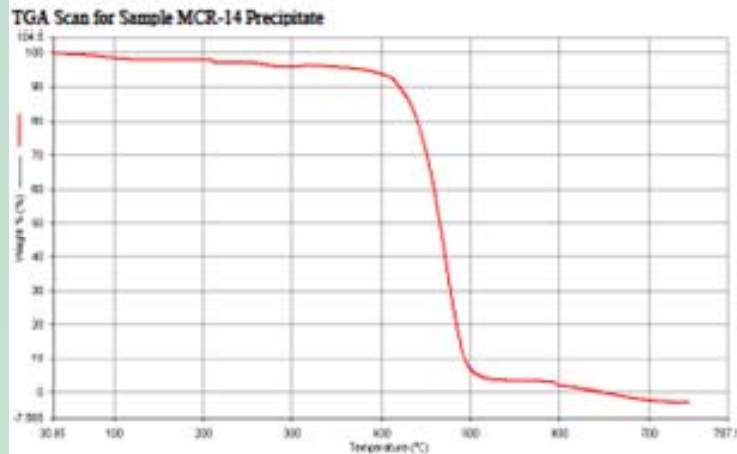
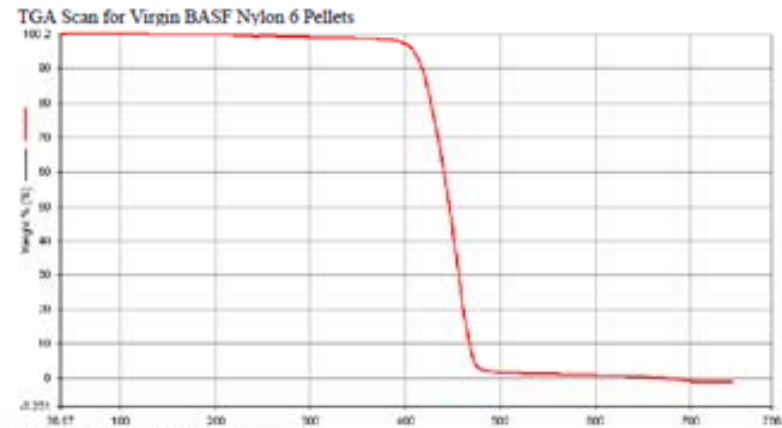


Chart 4: MCR-15 is Renewlon™ 6 sample and control



***INDEPENDENT LAB CONFIRMED NO SIGNIFICANT CONTAMINATION PRESENT AND SIMILAR WEIGHT LOSS***

# Gel Permeation Chromatography (GPC) Overlay Scans

Chart 1: MCR-6 is Renewlon™ 6,6 sample and Control

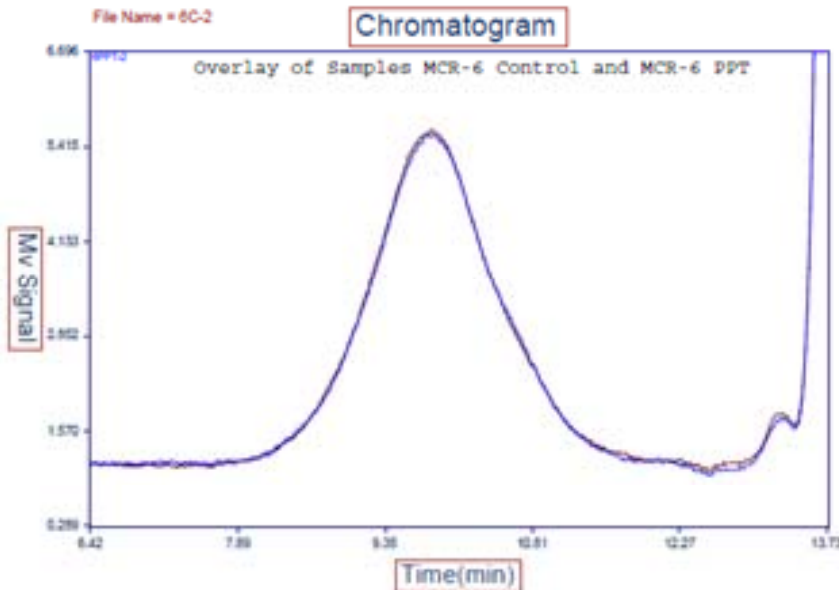
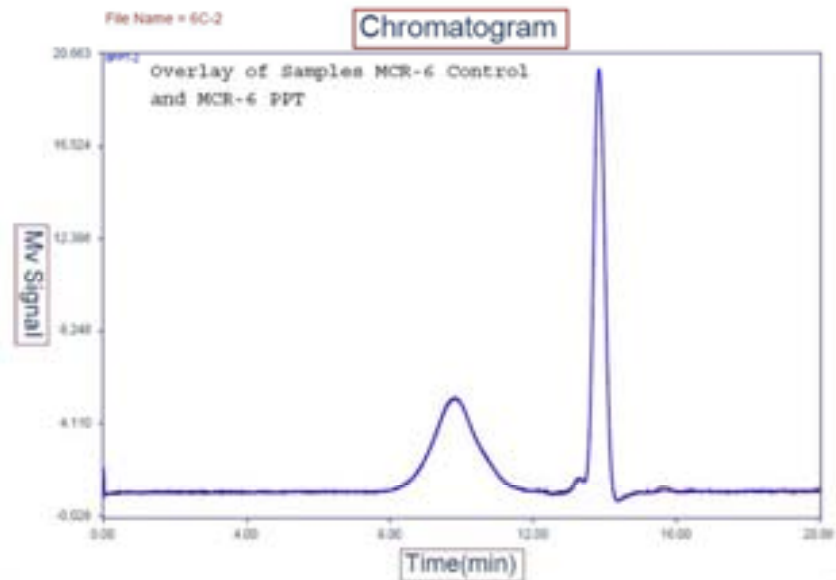


Chart 2: MCR-4 is Renewlon™ 6 sample and control

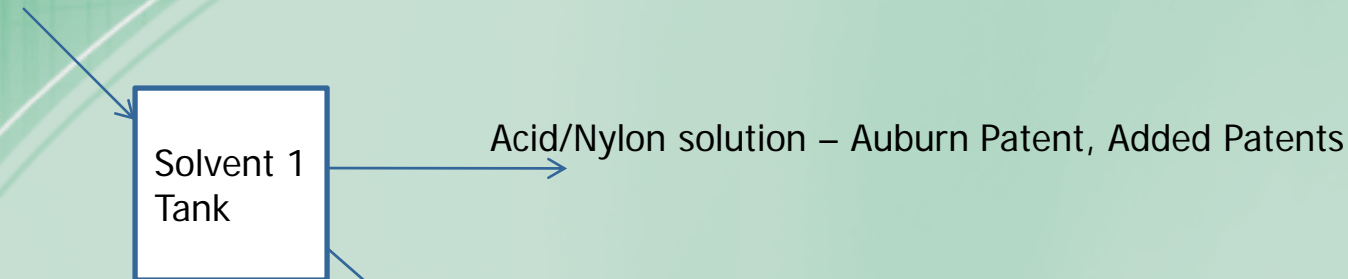


**INDEPENDENT LAB CONFIRMED VIRTUALLY IDENTICAL  
MOLECULAR WEIGHT SCANS VS. VIRGIN NYLON**



# The Future.....

Mechanically Processed nylon carpet



Renewlon™

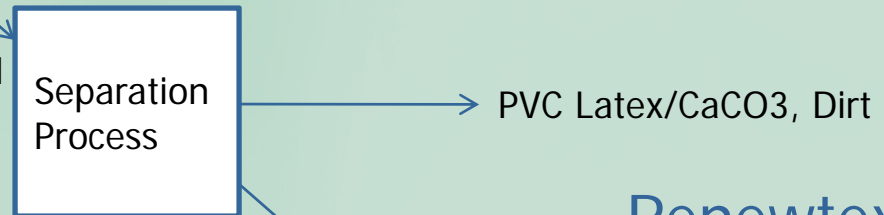
PP, CaCO3/Latex, Dirt

Mechanically Processed PP Carpet



Renewlene™

CaCO3/Latex, Dirt  
Synthetic and Natural



Renewtex™

SBR Latex/CaCO3, Dirt

***PATENT PORTFOLIO AND CUSTOMER STRATEGY DRIVE  
COMPANY VALUE AND ZERO WASTE***