

Materials Efficiency Workgroup

A glance at the past and a wish for the future

Making Good Programs Great

Supporting SP Technologies projects

- Enviroplas approved to supply 100% recycled content from Delphi into GM vehicles
- Circular commodity mgt. Plastic film bailer to enable bailing packaging film to process into vehicle seating liners and trash bags
- Goodwill Industries into SP relationship
 - Began recycling dunnage, plastic containers, caps, plugs,
 - Recharge and recycle vehicle batteries
 - E-waste program
 - Fiber, plastic drums, totes reused
- Communicated landfill free/zero waste program
- Mentored non-auto sector companies – Pepsico, etc
- Brought many students to meetings

SP Related Technologies, projects Making Good Programs Great

- Oil management – General Oil and Aveitas
- Extended lessons learned/best practices to:
 - MEP
 - Mexico and Canada (CEC)
 - RMI (Regional Manufacturers Institute)
- MFR Solvent wiper recycling into vehicle components
- MFR grinding swarf centrifuging for oil reuse and metal recycling
- Gayle Technologies, Ultrasound technology
- Spoke to the benefits and challenges of energy from waste - Covanta
- FTS Russell - Flame adhesion promotion technology, deburring
- MPS Vehicle air bag deployment technology
- Presented technologies to Mexico companies

Do not settle with traditional recycling



Cardboard, that includes bamboo and rice-based ('Asian') types enters GM facility waste streams through delivery of assembly parts



Federal-Mogul processes cardboard with recycled polyester to form nonwoven fabric called QuietShield. QuietShield is used as acoustical padding in automotive componentry



Buick Lacrosse (pictured above) and the Buick Verano use QuietShield in the production of headliners

- Filtration media recycling, created specification
- Potassium Hydroxide reuse options
- Materials and technology exchange proposed 10-11-09
- Gage - Paint purge recycling across the US
- Test America
- Cartridge filter recycling and reuse, offered best practice
- Functional black plastic recycling
- TPE recycling, GDCs Enduraprene
- Converting scrap vehicle components to make coats for the homeless

Sustaining our Future Through Innovation

Results And Benefits:

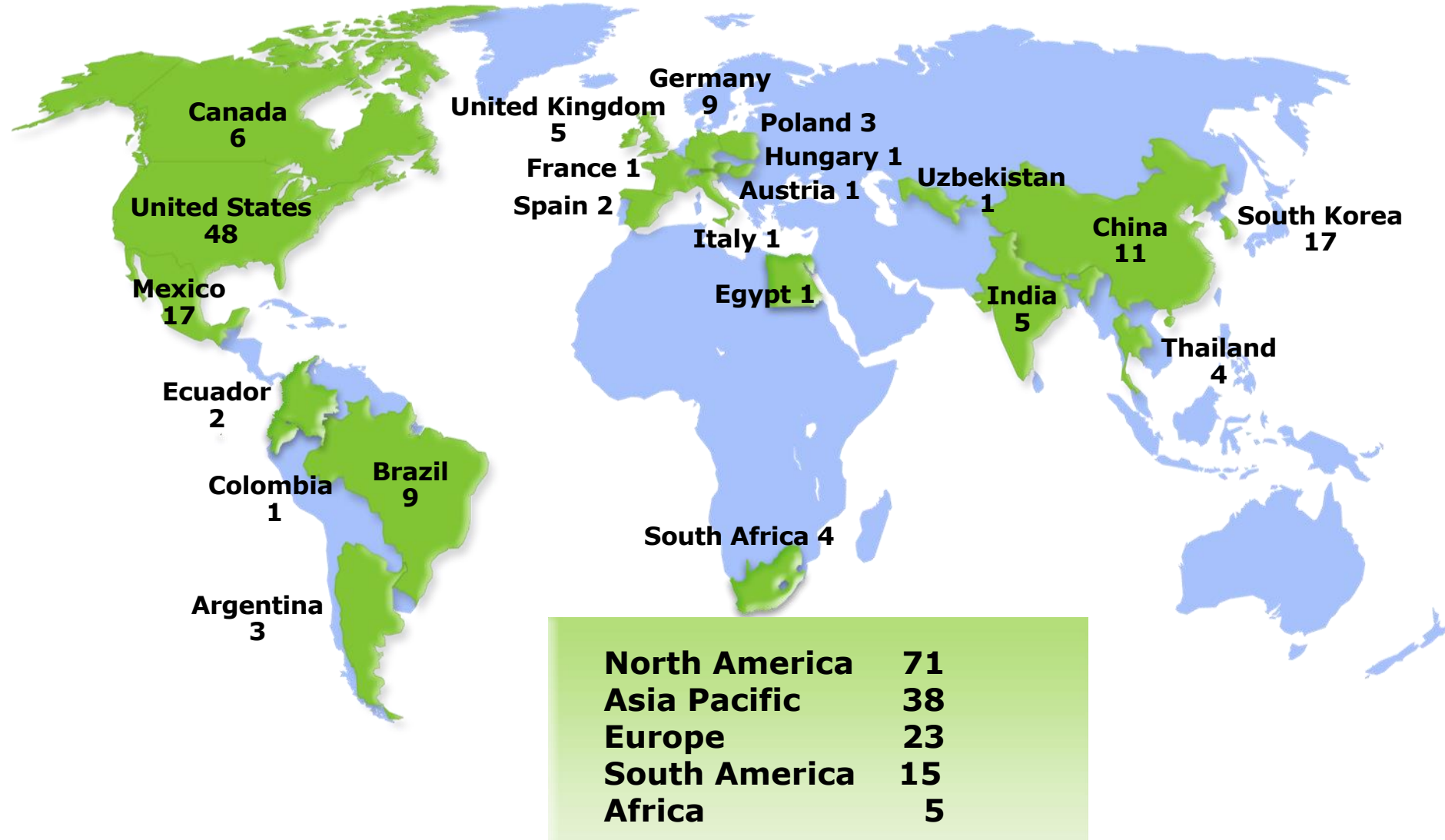
- Prevented 227 miles of boom from entering landfills
- Prevented 29,000 gallons of oil/water from entering landfills
- 212,500 pounds of waste eliminated
- Eliminated 149 tons of CO2 equivalent emissions
- Enabled Implementation by Empowering key stakeholders
- Demonstrated technologies and processes that provide superior oil absorbent materials that can be reused and recycled at end of life preventing landfill
- Formed process for future response efforts, material selections and product development strategies

*“How wonderful it is that nobody need wait a single moment before starting to improve the world”
- Anne Frank*



- Goodwill Toledo - Cardboard container exchange, reuse
- MFR Plant absorbent recycling and reuse
- Everybody's Paint - Latex household paint reuse
- MSW Tony Joseph - Cardboard shredding/bailing technology
- USBCSD Materials exchange program
 - ROC Detroit
- Offal blank reuse BAE
- Light weight recycled content pallets
- MFR - Oily sludge centrifuging, solids removal, water removal for oil reuse
- Composting and repurposing steel baskets, Detroit Dirt, Pashon Murray, Detroit urban farming movement
- Packaging reuse/recycling and repurposing, plastic corrugate, green garage

GM's 152 LANDFILL-FREE FACILITIES



This is why we do this work



Do Your Part!

