

# From Trash to Cash

## Recycling Auto Leftovers

*Did you know...*

More than 12 million vehicles are recycled in the U.S. each year. Most of the vehicle is recycled, but almost 25 percent of the materials, called shredder residue, ends up in landfills.

If we recycle all of the plastics and residual metals from the 5 million tons of shredder residue produced annually, it would save energy equal to 24 million barrels of oil and reduce carbon dioxide emissions by 12 million tons every year.

### Opportunity

A cost-effective technology is needed to recover recyclable materials from shredder residue.

### Argonne's Solution

In a unique on-site pilot plant, Argonne researchers have combined mechanical and flotation separation processes to sort out recyclable polymers and residual metals from shredder residue for potential use in new cars.

### Potential Benefits

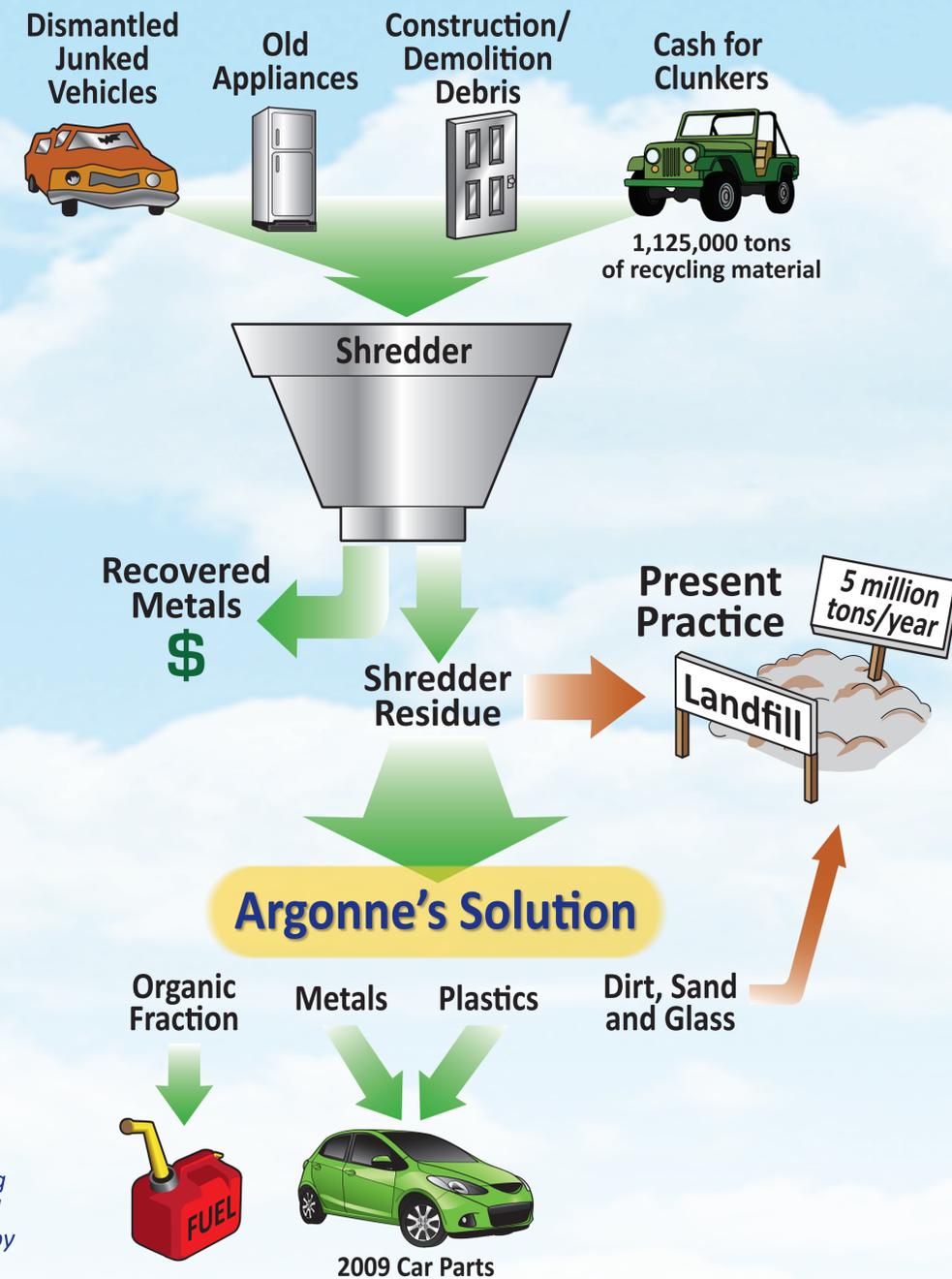
This energy-saving approach will reduce waste, offer an environmentally-friendly alternative to more expensive virgin plastics, and make the process of recycling cars more sustainable and profitable.

### Industry Partnership

Part of this work was done under a five-year Cooperative Research and Development Agreement (CRADA) with Chrysler LLC, Ford Motor Company, General Motors Corporation, and the American Chemistry Council-Plastics Division.



Researchers Joe Pomykala (foreground) and Jeff Spangenberg oversee Argonne's froth floatation separation pilot plant for separating plastics from mixed wastes generated by recycling facilities.



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