

Did You Know?

Ninety-five percent of all vehicles in the United States go through a market-driven recycling infrastructure that currently recycles more than 84 percent, by weight, of each end-of-life vehicle (ELV).

Market-driven is the practice of allowing the marketplace to direct an organization's innovation efforts to create an economically sustainable business. This means the practice is initiated without government regulation and with no extra cost, or ELV tax, to consumers.

U.S. automakers - Chrysler, Ford, and General Motors - formed the USCAR Vehicle Recycling Partnership LLC (VRP) in 1991 to collaborate with government and industry to understand, augment and enhance the existing vehicle recycling market by studying, developing and implementing new, sustainable technologies.

VRP Goals:

- Reduce the total environmental impact of vehicle disposal
- Increase the efficiency of component disassembly to enhance vehicle recyclability
- Develop material selection and design guidelines to optimize vehicle recyclability
- Promote socially responsible and economically achievable solutions to vehicle disposal
- Research and develop sustainable approaches to reduce the amount of shredder residue going to landfill
- Address the impacts of and recommend alternatives for substances of concern
- Identify potential opportunities and challenges related to recycling new and emerging materials for vehicles

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Founded in 1992, the United States Council for Automotive Research LLC (USCAR) is the umbrella organization for collaborative research among Chrysler LLC, Ford Motor Company and General Motors Corporation. The goal of USCAR is to further strengthen the technology base of the domestic auto industry through cooperative research and development.

The Vehicle Recycling Partnership LLC (VRP) is one of the programs managed through USCAR and addresses shared technological and environmental concerns related to sustainable and environmentally friendly vehicle recycling practices.

Vehicle Life Cycle Vehicle Life Cycle Vehicle Design & Manufacture Vehicle End-of-Life Shredder residue. Recovered materials are the evaluated for re-introduction into commerce automotive parts or in other forms. Parts and materials that require special handling are selectively removed Shredder residue may be used as preferred daily cover for landfills Processing. Materials reused by other industries

Materials Recycling Research

Sustainable Solutions.

Since 1991 the Vehicle Recycling Partnership LLC (VRP) has been dedicated to finding vehicle recycling solutions that are sustainable, are environmentally friendly and fit within the current recycling infrastructure.

Collaborative.

The VRP works closely with the dismantling and shredding industries, which handle all vehicles at the end of their useful lives. The VRP conducts research with universities and companies to discover and develop new recycling technologies.

Dismantling and Recovery.

The VRP materials research ranges from the dismantling of specific materials and parts from automobiles, to recovering specific plastics from shredder residue. Recovered materials are then evaluated for re-introduction into commerce as automotive parts or in other forms.

Continuous Innovation.

The VRP is actively researching the transformation of organic material from shredder residue into a fuel source and the recycling of materials used in hybrid batteries.

Much of the research conducted by the VRP is shared with the community through technical papers and presentations.

Life Cycle Analysis

What is it?

Life Cycle Analysis is a study that examines the total environmental impact of a product or process. For example, the life cycle analysis of an automotive steel body panel examines the mining operations used to obtain the ore, all the production steps used to create the finished part, the portion of fuel used to move the part during vehicle use and the eventual recycling or disposal of the material.

The VRP Model.

The VRP is developing a life-cycle model of the entire end-of-life disposition of a vehicle. This model will increase the understanding of environmental benefits offered by new technologies for handling shredder residue and for recycling separated materials.