



## Press Information

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# Dow and Gruppo Fiori develop breakthrough recycling process for automotive polyurethane waste

*Collaboration delivers novel process to recover polyurethane foam from end-of-life vehicles, driving critical progress toward closed-loop circularity for the automotive industry*

**MIDLAND, Mich., – Sept. 3, 2025 – Dow** (NYSE: DOW), in partnership with **Gruppo Fiori**, today announced the latest advancements in a jointly-developed, novel process that enables recovery of polyurethane waste from end-of-life vehicles without disassembly. This innovation combines Dow's expertise in materials science and Gruppo Fiori's established automotive recycling ecosystem to create a new pathway for end-of-life vehicle materials.

## A Breakthrough in Polyurethane Foam Recycling

Valued for comfort, safety and fuel-efficiency, polyurethane foam is an essential part of automotive interiors. A typical car contains about 28 kg of PU, 10-15 kg of which is in seats – an amount of material with potential for significant sustainability impact. Traditional recycling of vehicles, however, requires disassembly of automotive components, creating cost and complexity for recyclers.

Dow and Gruppo Fiori's innovation eliminates this step, producing a simplified recovery for PU waste stream with the purity needed to enable depolymerization (chemical recycling). This innovation drives toward a circular automotive supply chain by:

- Obtaining a polyurethane waste stream suitable for depolymerization from end-of-life vehicles without disassembly;
- Keeping valuable polyurethane foam out of landfills and reintegrating it into productive use;
- Enabling industrial-scale recycling and reuse of polyurethane in mobility application;
- Facilitating the creation of polyol with recycled content;
- Helping enable compliance with upcoming mandatory recycled content requirements from End of Life Vehicle Regulation (ELVR), as well as OEM's sustainability goals.

## Advancing Automotive Circularity

"Collaboration is essential to building a closed-loop supply chain for the automotive industry," said Dr. Esther Quintanilla, global MobilityScience™ marketing director, Dow Polyurethanes. "By partnering with Gruppo Fiori, we aim to help OEMs and component manufacturers meet their sustainability goals and regulatory requirements for recycled content without sacrificing the performance benefits of polyurethanes."

This program with Gruppo Fiori can enable **Dow's Renuva™** portfolio of recycled materials, which exists to accelerate the transformation of waste streams into new raw materials through mechanical and chemical recycling.

“Advancing circular ecosystems means bringing every member of the automotive value chain to the design table to solve recyclability challenges,” said Mauro Grotto, president of Italmetalli, a Gruppo Fiori company. “By augmenting our expertise in recovering and sorting materials from end-of-life vehicles with Dow’s depolymerization capabilities, we can restore the value of waste and share that value with the industry.”

### **From MoU to Market Readiness**

This milestone builds on the **2024 memorandum of understanding (MoU)** between Dow and Gruppo Fiori to create a new ecosystem for recycling EOL vehicle parts and materials. The companies’ partnership analyzed dismantling processes, assessed the purity and recyclability of recovered materials and are piloting innovative business models through an accelerated “test-and-learn” approach. These latest technical breakthroughs signify significant progress in a short timeframe to provide positive momentum for future industrial implementation.

With world-class technical capabilities and a diverse portfolio of materials science options, Dow MobilityScience™ pioneers innovation that drives global progress. From addressing challenges like decarbonization to enhancing EV performance, Dow remains at the forefront of advancing mobility. For further details, please visit the **MobilityScience™ website**.

To learn more about the Dow-Gruppo Fiori collaboration and **Depolymerization | Polyurethane Chemical Recycling**.

### **About Dow**

Dow (NYSE: DOW) is one of the world’s leading materials science companies, serving customers in high-growth markets such as packaging, infrastructure, mobility and consumer applications. Our global breadth, asset integration and scale, focused innovation, leading business positions and commitment to sustainability enable us to achieve profitable growth and help deliver a sustainable future. We operate manufacturing sites in 30 countries and employ approximately 36,000 people. Dow delivered sales of approximately \$43 billion in 2024. References to Dow or the Company mean Dow Inc. and its subsidiaries. Learn more about us and our ambition to be the most innovative, customer-centric, inclusive and sustainable materials science company in the world by visiting [www.dow.com](http://www.dow.com).

### **About Gruppo Fiori**

Gruppo Fiori has been operating for around 70 years and today represents one of the main Italian companies in the ferrous and non-ferrous scrap recycling sector. Always looking for technologically advanced solutions, it combines goals often seen as diverging: economic development and environmental protection. As a natural evolution of this responsible approach and constant commitment to continuous improvement, the Gruppo Fiori has decided to adhere to the EMAS Regulation for both the Crespellano-Bologna (Italmetalli) and Rome (Italferro) plants. In addition to the 2 ELVs shredding mills, the Group operates several lines dedicated to

other non-ferrous metal waste and it deploys various technologies to close the end-of-life cycle for cars. The Group has a turnover of 450 million euros and approximately 200 employees.

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