

Chirino Outlines Roadmap for Circular Economy in Automotive Plastics and Polymer Composites

Achieving a circular economy in automotive plastics and polymer composites represents a projected value of \$4.5 trillion by the year 2030, according to a report from Jose Chirino, Chair of the American Chemistry Council Automotive Team and Technical Director for the High Performance Materials Business Unit at Lanxess Corporation.

Chirino was a featured presenter at the IACMI Fall 2020 Virtual Members Meeting on Oct. 7, 2020. He explained that a true circular economy is one, “in which, by design, no molecule is wasted – while continuing to meet performance requirements and bring value throughout the supply chain.”

He said that the transition toward a circular economy for industrial goods will require composite and polymer producers, along with the automotive industry and its suppliers, to rethink the ways vehicles and their materials are designed, constructed, used and handled at the end of life.

“While the traditional linear economy follows a ‘make, use, dispose’ path, a circular economy is designed to keep resources in use for as long as practicable by extracting value from them while in use and recovering and reusing materials at the end of each service life,” he said. “In essence, it’s a new, more comprehensive way of thinking about the supply chain structure, material and product design and end of life recovery.”

“This type of comprehensive thinking has significant environmental benefits, supports longer product lifetimes and presents us with a significant business opportunity,” Chirino said. “In fact, the value of the circular economy is expected to hit \$4.5 trillion by 2030, \$400 to \$600 billion of which could go to automotive companies and their suppliers.”

To assist the industry in achieving this goal, Chirino outlined a 10-step path to achieve a more circular economy for industrial goods. The full report is available at www.automotiveplastics.com

“The good news is, as an industry, we recognize the need to focus on circularity and are already taking steps to transition towards a circular economy,” he said. “Rethinking the design of automotive plastics and polymer composite and the systems that process them with the end of life in mind will be a critical aspect of a truly circular economy as well as a potential market advantage.”