Changhua Begins Commercial Production of CO_2 Polyols Based on Econic's Technology

Shanghai, China — March 23, 2025 — Econic Technologies, a deep tech company focused on renewable carbon, announced that its partner Changhua Chemical has opened the world's first commercial-scale production site for polycarbonate ether (PCE) polyols, a new class of sustainable polyols made with carbon dioxide. Branded as Carnol™, the new polyols are based on a proprietary technology from Econic that results in cost-competitive, high-performing products with a 30% lower carbon footprint versus typical polyols.

The new site is located in Lianyungang in China's Jiangsu province. It will produce about 80,000 tons of Carnol in 2026 with plans to scale to more than one million tons in years to come.

Carnol polyols are designed for use in polyurethane foams, coatings, elastomers, and other applications in which they offer both environmental benefits and improved performance. For example, flexible foams made with Carnol have a lower carbon footprint as well as enhanced load bearing and tensile strength characteristics versus industry benchmarks. Other examples of applications include lightweight automotive parts, protective apparel and footwear, and insulating construction materials.

"The opening of this plant is a watershed moment for the chemical industry. It demonstrates the industrial readiness of captured carbon utilization. Now brand owners and manufacturers across the whole value chain can reduce their carbon footprint by using captured CO_2 as a sustainable raw material. Together with Changhua Chemical we are creating value from something that was once waste and paving the way for broad adoption of this technology in the polyurethanes market and beyond," said Keith Wiggins, CEO of Econic Technologies.

"China's chemical sector has an opportunity to help deliver global sustainability goals. At Changhua Chemical, we are proud to lead this transformation for the polyurethanes industry. As we bring our new plant online, we aim to drive the transition to this green technology. This market-based industrial model, utilizing readily available CO_2, is replicable and will be sustainably scaled to decarbonize without compromising performance," said Dr. Gu, Chairman and Owner of Changhua Group.

Outside of China, Econic's polyols technology is licensed by Monument Chemical in the US. The company has announced MOUs with Manali Petrochemicals in India, Sanyo Chemical in Japan, PTT Global Chemical Public Company Limited in Thailand, and Chimcomplex in

Romania. In 2025, it also expanded its portfolio of technologies into surfactants with the launch of Recreaire® carbonate ethoxylates.

About Econic Technologies

Econic Technologies is a UK-based deep tech company focused on renewable carbon. Its innovative catalyst and process technology allow manufacturers to produce polymers based on CO_2 instead of petrochemicals. The use of CO_2 enhances sustainability while creating more cost-effective, higher-performing end products. Econic licenses its technology to polyols and surfactants manufacturers that supply some of the world's most iconic consumer brands. Econic was founded in 2011 by Dr. Charlotte Williams at Imperial College London. The company is part of Cleantech Group's Global Cleantech 100. Its global headquarters are in Alderley Park, UK just outside of Manchester.

About Changhua Chemical

Changhua Chemical is the leading supplier of high-quality polyether polyol. Changhua Chemical's materials and applications solutions are ubiquitous in our lives. Innovation and sustainable development are the driving forces for the continuous development of Changhua Chemical's products, processes, and facilities. Changhua Chemical is the holding subsidiary of Jiangsu Changshun Group. It was founded in 2010 and located in the port-surrounding Provincial fine chemical park Yangtze River Chemical industrial park, Zhangjiagang city, Jiangsu Province.

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