PRESS RELEASE

Global Impact Coalition

Global Impact Coalition Launches Pioneering R&D Collaboration with Researchers from ETH Zurich to Investigate the Transformation of Waste to Chemical Feedstocks

Geneva, Switzerland – September 23, 2025 – The **Global Impact Coalition (GIC)**, a CEO-led coalition committed to advancing a circular, net-zero future for the chemical value chain, has launched a strategic research collaboration with scientists from **ETH Zurich** and five GIC member companies: **BASF, Clariant, Covestro, LyondellBasell,** and **SUEZ**. The aim of this collaboration is to explore synergies between traditional chemical processes and emerging technologies that convert waste into circular chemicals, specifically focusing on the possible direct conversion of waste into chemicals in a more sustainable approach.

Direct conversion is a promising technology that can transform complex waste streams into valuable C2+ chemical compounds—such as ethylene and propylene—through gasification. These compounds are essential building blocks for products like contact-sensitive plastics, detergents, paints, and textiles. The process could offer a lower emission, cost-effective alternative to fossil-based feedstocks, with the potential to reduce reliance on virgin resources and cut greenhouse gas emissions from chemical production.

"Our collaboration with ETH Zurich scientists represents a significant step toward realizing a circular and net-zero chemical industry," said **Charlie Tan**, CEO of **GIC**. "By leveraging cutting-edge research and industry expertise, we aim to explore scalable solutions that address both environmental and economic challenges."

Researchers at ETH Zurich will conduct environmental and techno-economic assessments of the direct conversion process. Findings from these studies will help assess the viability of a proof-of-concept and identify conditions for any future pilot-scale efforts.

“The chemical industry must shift from fossil-based inputs to renewable and circular carbon sources. Through our collaboration with GIC on Direct Conversion, we’re exploring how to transform waste into essential chemicals—an important step toward operating within planetary boundaries,” said **Professor André Bardow**, Chair of Energy and Process Systems Engineering at **ETH Zurich**.

“This partnership shows how science and industry together can drive real progress toward a circular future. With direct conversion technology, we can turn everyday waste into valuable chemical ingredients, cutting down on fossil resources and closing the loop in chemical production,” said **Richard Haldimann**, Chief Strategy & Technology Officer at **Clariant** and Chairman of the GIC Executive Committee.

The collaboration will explore key scientific and technical challenges in waste-to-chemicals conversion, including processing heterogeneous waste materials and integrating new feedstocks into existing chemical value chains. By combining GIC's industry knowledge with ETH Zurich's research expertise, the project aims to build a shared understanding of opportunities and constraints in this emerging field.

As convener of the initiative, GIC played a key role in identifying this research priority, facilitating dialogue between industry and academia, and coordinating member company participation to ensure real-world relevance and applicability of findings.

For more information about the project, visit: https://globalimpactcoalition.com/project/direct-conversion/

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About Global Impact Coalition:

The Global Impact Coalition (GIC) is a CEO-led platform driving the chemical value chain toward a circular, net-zero future. Incubated at the World Economic Forum, GIC turns sustainability challenges into commercial solutions through cross-industry collaboration. By co-developing and scaling new technologies and business models, GIC members tackle sustainability challenges no company can solve alone. GIC is guided by global leaders including BASF, SABIC, Clariant, Covestro, LG Chem, LyondellBasell, Mitsubishi Chemical Group, Moeve, Syensqo, and SUEZ. For more information, visit GlobalImpactCoalition.com or LinkedIn @GlobalImpactCoalition

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