Renewable Materials Conference 2024 - Presentation

Titel   **Transparency at Scale: Automating Lifecycle Assessments in the Chemical Industry**

Abstract   As the imperative for the adoption of sustainable practices intensifies, the automation of Lifecycle Assessments (LCA) emerges as a pivotal and strategic imperative within the chemical industry. This presentation seeks to provide a nuanced and comprehensive exploration of the dynamic domain of automated Lifecycle Assessments, offering a rigorous analysis of the methodology, advantages, challenges, and a prospective insight into future developments. The speaker will discuss the following points from a practitioner's perspective:

Approach and Methodology
The presentation outlines the innovative use of enterprise data to scale LCAs to ensure a holistic view of environmental impacts across global product portfolios. By integrating different data sets and systems, the methodology demonstrates the ability to model LCAs with unprecedented breadth and depth, reflecting the inherent complexity of chemical value chains.

Advantages and Benefits
The implementation of automated LCAs offers numerous advantages. Consistency across assessments is achieved, eliminating discretionary choices, and enhancing reliability. The automation process ensures a high degree of accuracy in evaluating environmental impacts, contributing to data-driven decision-making. Furthermore, the unprecedented efficiency gained through automation significantly reduces the time and resources traditionally required for conducting LCAs.

Challenges and Limitations
The presentation will examine the challenges associated with automation and discuss mechanisms to ensure transparency, validation, and data quality. Special emphasis will be given to validating and effectively communicating the outcomes.

Outlook on Future Developments and Trends
The presentation concludes with an insightful look into the future of automating LCAs in the chemical industry. The discussion encompasses emerging trends such as data sharing platforms facilitating collaboration between industry players, scaling the concept of mass balancing and its implications for automating LCA, and the increasing need for circularity indicators.

Speaker's Bio

Daniel Bochnitschek is Co-Founder and Managing Director of AllocNow. Together with his team he supports chemical companies in driving the transformation towards sustainable and circular business models. Prior to co-founding AllocNow, he spent eight years in management consulting, focusing on strategic and operational issues in the chemical industry and related sectors.