

Proposed Abstract: CO₂-based Fuels and Chemicals Conference 2025

About the speaker:

Peter Nieuwenhuizen is a key collaborator with Synata Bio, working to introduce its innovative technology in Europe and develop tailored local market applications and projects.

Peter holds a PhD in chemistry from Leiden University and brings extensive experience from a diverse career spanning R&D, sales, marketing, supply chain, sustainability, and technology leadership. During his tenure at AkzoNobel, a leading coatings and chemicals company, he held multiple senior positions, including Chief Technology Officer (CTO). Additionally, Peter has worked as a strategy consultant with Arthur D. Little and co-founded the European Circular Bioeconomy Fund (ECBF), fostering innovation in sustainable industries.



Beyond his role at Synata Bio, Peter is Chair of the Board for **Itaconix plc**, a London AIM-listed company that develops and markets plant-based itaconates for consumer products. He also serves as Chair of the Board for **Change Chemistry**, a U.S.-based non-profit dedicated to making safer and more sustainable chemical solutions widely accessible. Peter also helped raising EUR 80 million for BioBTX to launch the world's first renewable aromatics production plant.

Peter lives in Amersfoort, The Netherlands, with his spouse and two children in Amersfoort,

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Proposed presentation

Proposed Presentation Title:

Turning Waste Carbon into Low-Carbon Fuel & Circular Chemicals

In his presentation, Peter Nieuwenhuizen will introduce Synata Bio and its unique technology, the result of 17 years of dedicated R&D. This process converts CO₂ into ethanol using Synata Bio's proprietary microorganism and scalable, patented bioreactor. He will also highlight Synata Bio's Sylonto joint venture (JV) and its first commercial plant, showcasing the maturity and readiness of the technology for real-world applications.

Peter will then introduce four key opportunities where this technology can drive significant carbon abatement and utilization:

1. Tail gases from coal conversion.
2. CO₂ emissions from first-generation ethanol mills.
3. Ethane cracking processes.
4. Power-to-liquid (PtL) applications, including sustainable aviation fuel (eSAF) production.

Finally, he will present a high-level overview of the technology's techno-economic advantages, emphasizing its competitive position in both operational (opex) and capital expenditures (capex). This combination of innovation and efficiency positions Synata Bio as a leader in decarbonization for hard-to-abate industries.