

Abstract submission

for a presentation at the

CO₂-based Fuels and Chemicals Conference 2025

Title: Certifying Sustainability: Frameworks for CO₂-Based Fuels and Materials

Abstract:

As CO₂ utilisation technologies advance, the need for robust certification systems to ensure environmental and social sustainability becomes increasingly critical. This presentation examines the relevance of certification for CO₂-based fuels, offering insights into current global certification frameworks and identifying gaps and opportunities. It introduces RSB's holistic sustainability approach that integrates ecological, social, legal and management dimensions and discusses the main criteria of the Renewable Fuels of Non-Biological Origin (RFNBO) certification standard, which is setting the regulatory foundation for certifying renewable hydrogen and CO₂-based fuels within the European Union. Building on this foundation, the presentation explores the potential for adapting such standards to voluntary certification schemes for CO₂-based materials, fostering trust and transparency in emerging markets. By bridging certification practices with innovation, the session aims to inspire new pathways for sustainable development in the Power-to-X and CCU sectors.