



Session 6	Microbes and gaseous feedstocks
Pitch Title	CO2 biomanufacturing
Company	Phase Biolabs
Speaker	David Ortega
Keywords feedstock	CO2
Keywords technology	ethanol
Keywords End-Product	Carbon upcycling, gas fermentation, CCU
Abstract:	
<p>For most industries, CO₂ emissions represent a significant cost—both financially and environmentally. But what if CO₂ could be transformed from a liability into a valuable resource?</p> <p>At Phase Biolabs we are commercialising CO₂ Biomanufacturing technology to create new revenues streams from waste CO₂, unlocking its true value.</p> <p>We believe the future of biomanufacturing lies in leveraging CO₂ as the cornerstone of production because CO₂ isn't a waste, it is a valuable, limitless and untapped resource.</p> <p>Phase makes carbon negative chemicals and e-fuels from CO₂ using fermentation. This bioprocess uses engineered microorganisms as biocatalysts to convert CO₂ and hydrogen gas into useful chemicals like ethanol. Our advantage lies in the direct use of CO₂ as a feedstock. We convert it into product in a single step with a single technology and without generating CO₂. We engineer our microorganisms to enhance their production capabilities, making our fermentation process faster and more efficient. All of this means higher efficiencies and lower costs.</p> <p>What is exciting, is that by genetically modifying our proprietary microorganisms, we can produce a portfolio of products directly from CO₂.</p> <p>Our manufacturing process not only leverages a limitless feedstock in CO₂, but it also leverages the decreasing cost of renewable energy enabling us to produce ethanol at lower cost than the incumbent industry, while delivering a carbon negative product.</p>	