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## UCT spin-off company selected into the prestigious Breakthrough Energy Fellows



Nico Fischer, Wijnand Marquart, and Michael Claeys

Photo: Supplied

A University of Cape Town (UCT) spin-off company, C STAR, has been chosen to participate in the prestigious <u>Breakthrough Energy's Fellows Program</u> (BE Fellows) to advance the production of synthetic fuels from carbon dioxide to solve the global need for sustainable transportation fuels.

The mission of C STAR – a spin-off company out of the <u>Catalysis Institute</u> at <u>UCT's</u> <u>Department of Chemical Engineering</u> – is to enable the production of sustainable hydrocarbon fuels from carbon dioxide. The BE Fellows programme supports early-stage

innovators who are developing technologies with the potential to significantly reduce greenhouse gas emissions at scale.

BE Fellows receive funding, tailored technical guidance and access to Breakthrough Energy's global network of mentors, experts and partners. The programme helps founders bridge the gap from lab to market and advance their solutions toward commercial readiness.

C STAR was chosen as part of the 2025 class of Fellows, which includes 45 Fellows from 20 pioneering companies. This group includes innovators working across electricity, transportation, buildings, manufacturing and agriculture. Half of the teams selected are based outside the United States, reflecting the programme's global reach and commitment to building an international community of climate entrepreneurs. C STAR is the first Fellows team based in Africa.

"The opportunity to join the 2025 class of Breakthrough Energy Fellows is invaluable in our quest to commercialise our technology for decentralized production of sustainable liquid fuels from carbon dioxide," said Dr Wijnand Marquart, chief operating officer of C STAR. "With this support and associated global network, we can focus on de-risking our technology and preparing it for real-world deployment."

Marquart did his MSc and PhD at UCT's Catalysis Institute and has been a postdoctoral fellow till transitioning into the COO role.

"Supported by BE Discovery, C STAR's vision of transforming CO<sub>2</sub> into a valuable resource is closer than ever", said Professor Nico Fischer, co-founder and director of C STAR. Fischer is a professor of chemical engineering and SARChI Chair of Sustainable Catalysis and director of UCT's Catalysis Institute.

Co-founder and director Professor Michael Claeys added: "C STAR was founded in 2022 to bring three decades of university research to market. Being part of the Breakthrough Energy Fellows Program will be the catalyst that helps us turn this science into real-world impact." Claeys is an NRF A-rated scientist and professor in chemical engineering at UCT.

Since its launch in 2020, BE Fellows has supported over 160 innovators across nearly 20 countries. Alumni have secured over R8 91 billion (\$475 million) in follow-on funding, filed 175 patents, and completed more than 80 pilots and demonstrations.

**Ends** 

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