## CO<sub>2</sub> Catalysts & Reactor Designs For Fuels, Chemicals & Plastics

OXCCU

A spinout from the University of Oxford

## In a net zero world, we will still need hydrocarbons

Renewables can be used directly for power and ground transport... And some sectors can use hydrogen directly...



...But we will still need carbon-based molecules for long distance fuels, chemicals and plastics



Fuels due to energy density.



Petrochemicals and...



...plastics as carbon is the backbone of the molecules.

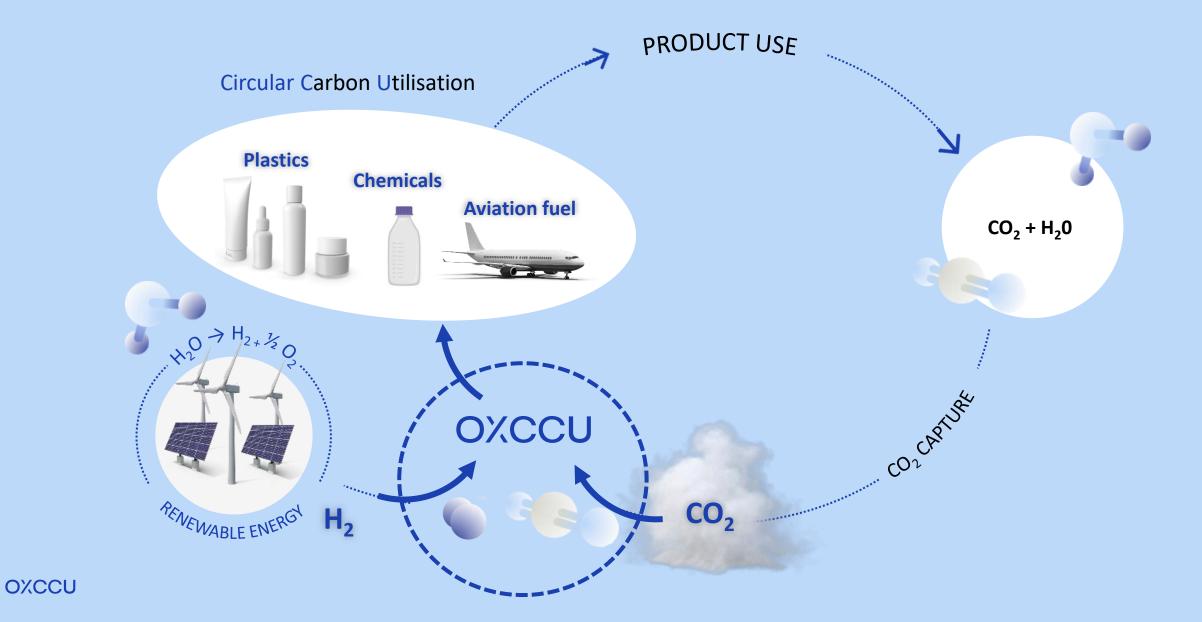
## But with no fossil fuels, where will we get them from?

### Bio-derived fuels and plastics have well-known issues at scale

competition with food; land use; biodiversity; fertiliser use; water use; oxygen in molecules; processing of 2<sup>nd</sup> generation;



## The answer is utilising carbon dioxide (CO<sub>2</sub>)



## The challenge is activating inert CO<sub>2</sub>...

CO

#### The answer is **catalysts**

OXCCU

CONFIDENTIAL

## OXCCU is an Oxford University spin-out developing

Novel Catalysts & Reactor Designs for CO<sub>2</sub> Utilisation H<sub>2</sub>

E-HYDRO CARBONS

H<sub>2</sub>O

## \$23m Series A with world-class investors



One of Europe's most active and

longstanding climate tech investors



Top US cleantech VC – just raised new £200m+ fund



One of the largest companies in the world at over \$2 trillion



World's third largest airline







One of the largest investors in Oxford



One of the largest oil companies in the world



One of the largest physical commodities traders in the world



Linked to Techint, one of the largest global engineering firms

### Published in nature communications 2020

#### Forbes

"These Oxford Scientists Just Created Carbon-Neutral Jet Fuel From CO2"

#### WIRED

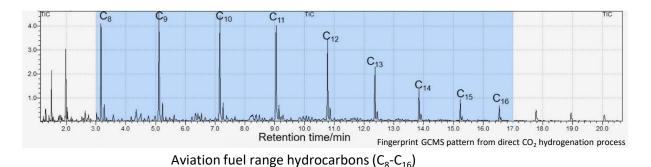
"Could Carbon Dioxide Be Turned Into Jet Fuel?"

### INDEPENDENT

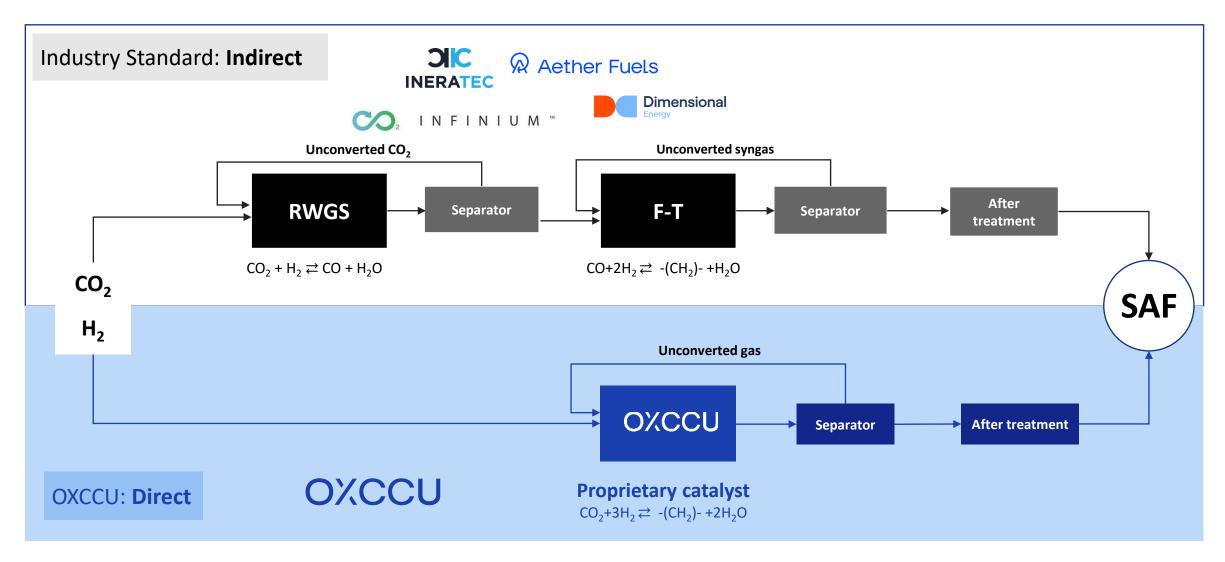
"Scientists create jet fuel using CO2 that could lead to carbon neutral flights"

### The Washington Post

"Researchers unveil new method for converting carbon dioxide into jet fuel"



## One-step conversion of CO<sub>2</sub> to jet fuel



## Demo plants first, then move to licencing to project developers

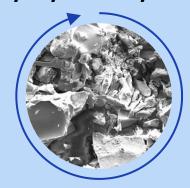
#### UPFRONT PAYMENT

#### **Technology Package**



- Sell technology package to project developer
- ✓ Upfront fee on signing, larger upfront fee when operational
- Tiered pricing according to capacity of plant
- Delivery by EPC partner. Ongoing O&M is customer expense

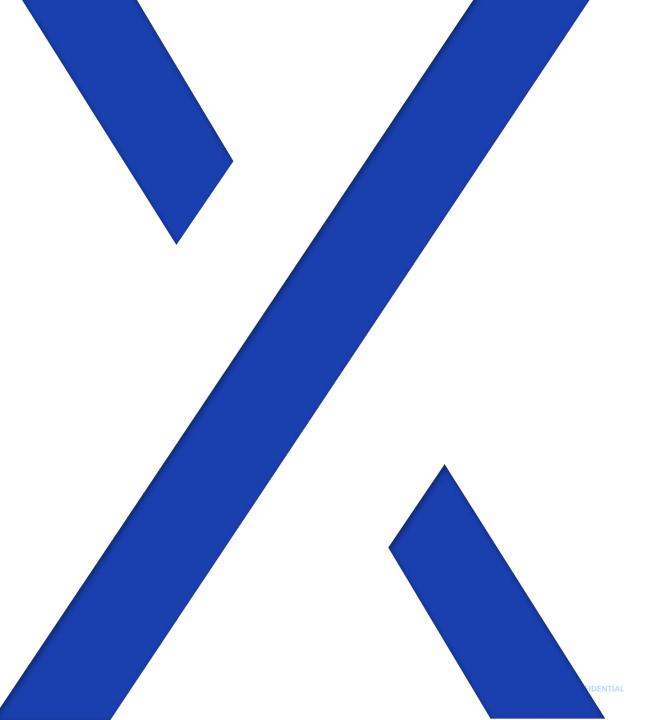
Recurring Royalty & Catalyst Supply



- ✓ Royalty based on fuel produced
- ✓ Long-term supply contracts for proprietary catalyst
- ✓ Stable, predictable, recurring revenue
- Catalyst manufacture, supply & renewal by third party via tolling agreement



# Thank you!



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