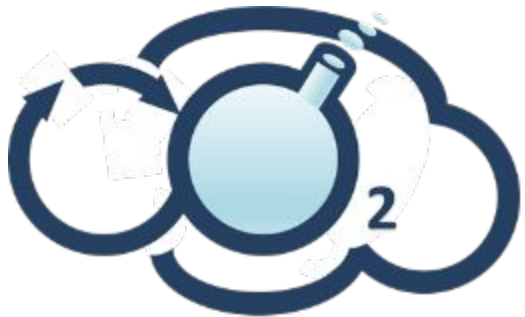
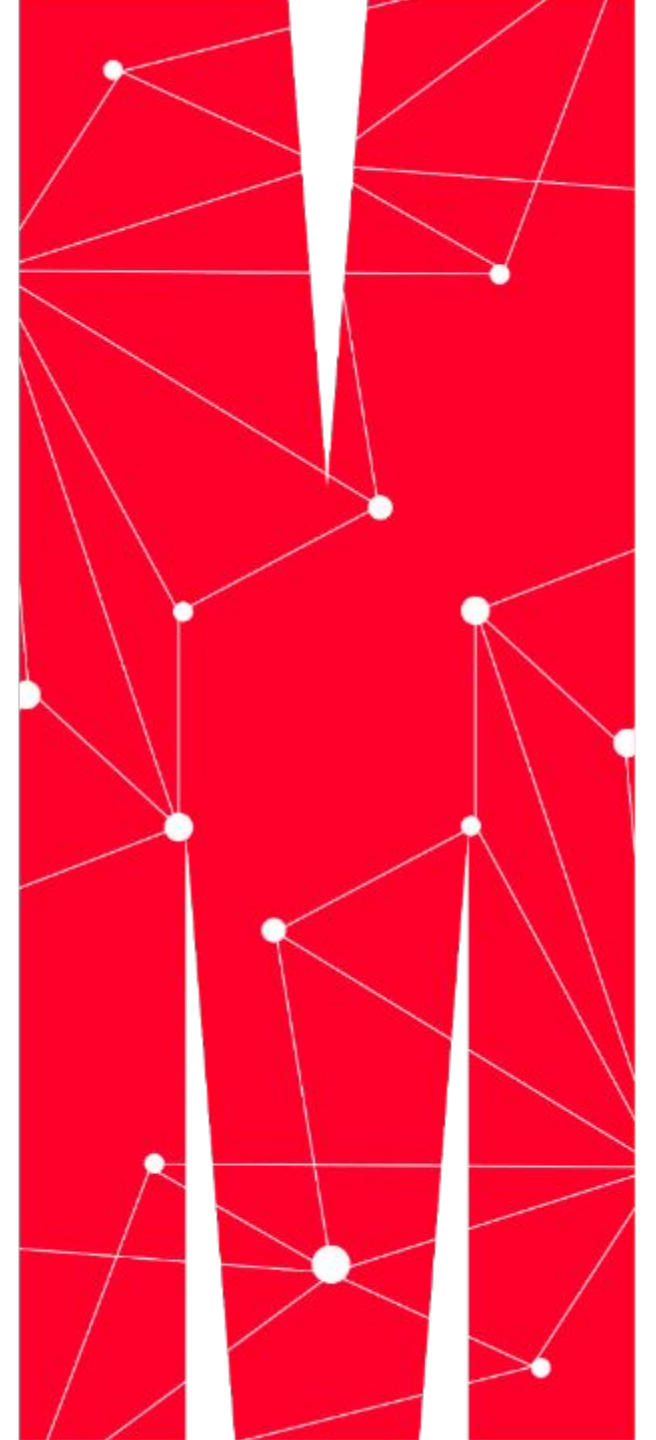


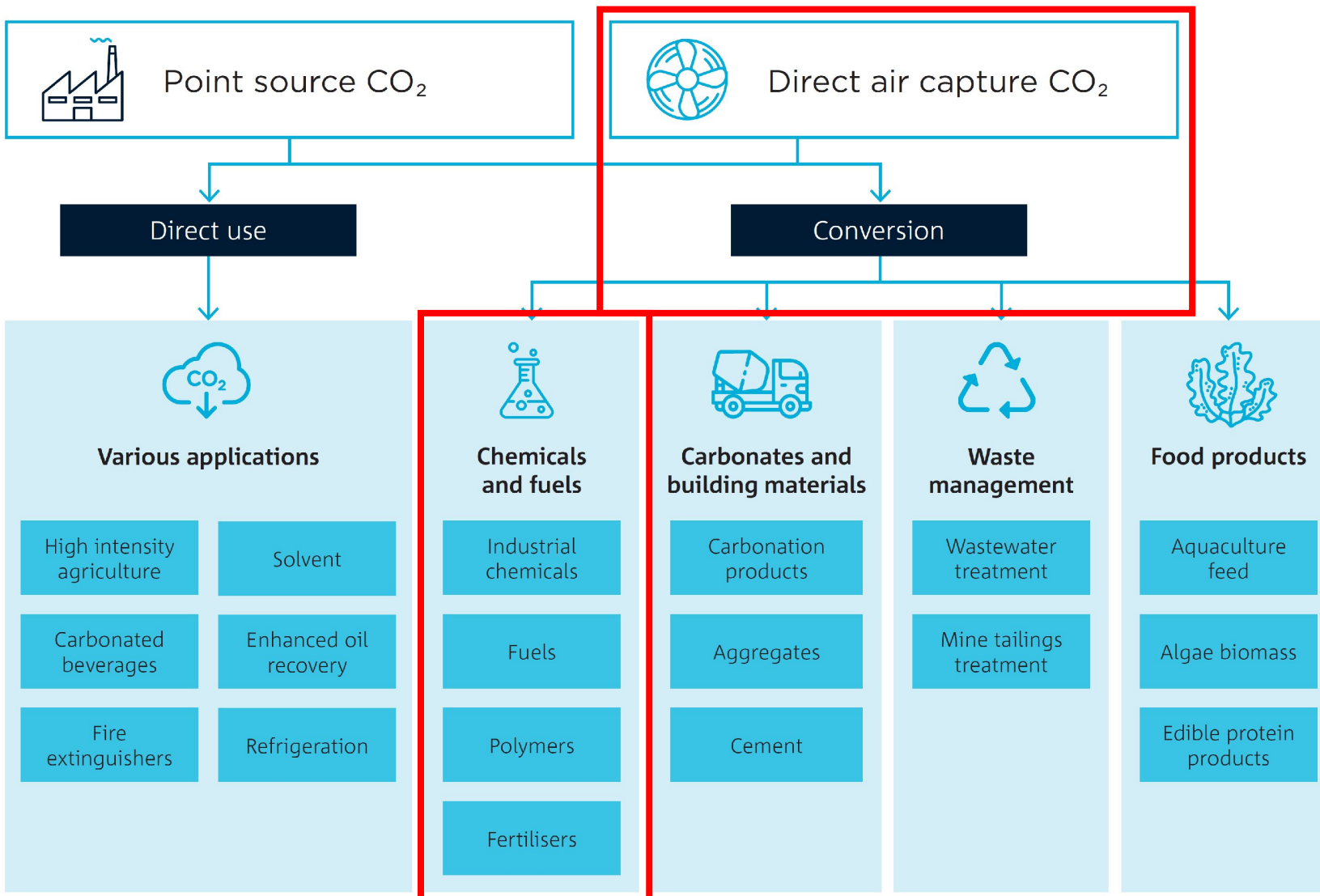
ThermoCatalytic Conversion of CO₂ to Value Added Chemicals and Fuels



ARC Research Hub for
Carbon Utilisation & Recycling



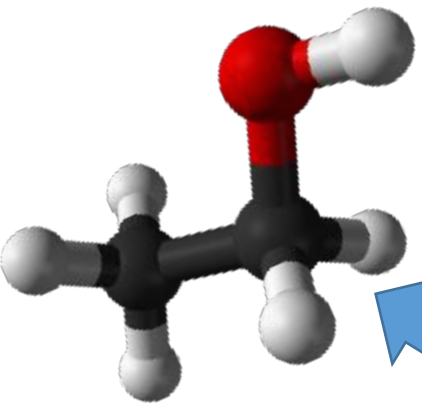
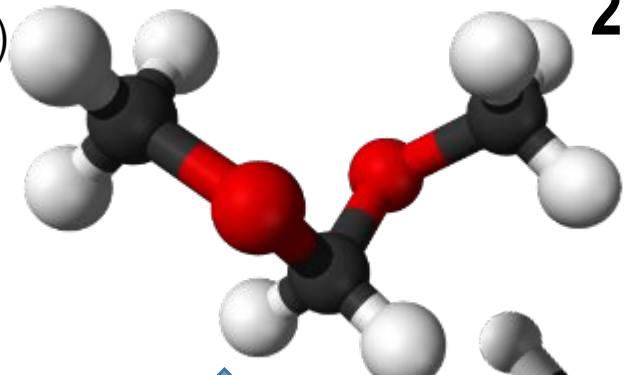
Carbon Capture and Utilisation for Hard-to-Abate Sectors



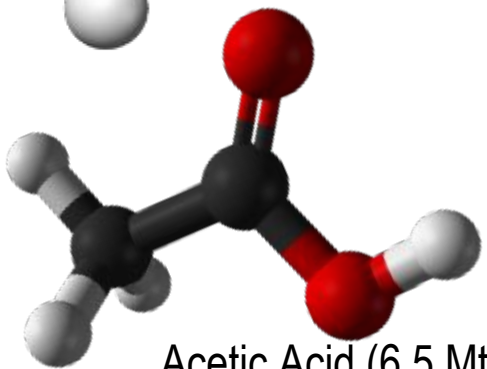
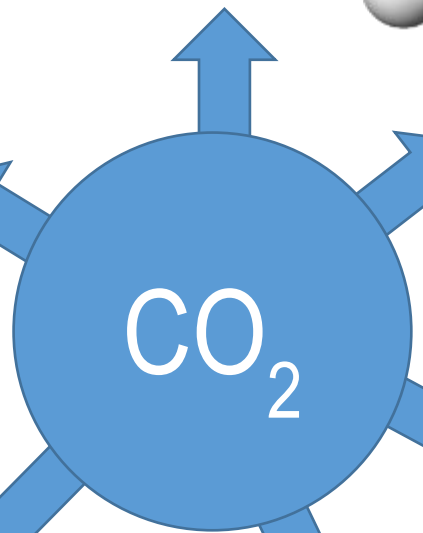
- Our research focuses on carbon capture and utilization (CCU) for hard-to-abate sectors like energy, cement, steel and chemicals where carbon is part of the process.
- We are developing scalable prototypes for direct air capture (DAC) followed by thermocatalytic CO₂ conversion into chemicals and fuels.
- We have a strong and comprehensive research program for CO₂ and synthesis gas conversion –
 - Catalyst development
 - Process development
 - Electrification of process
 - Technoeconomics
 - Life cycle assessment

CO₂ to Products

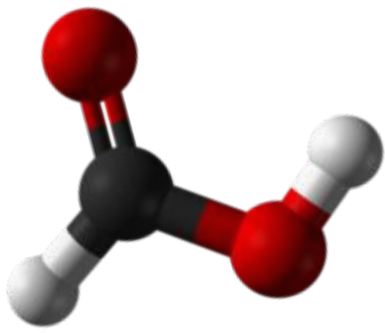
Poly Oxymethyl Dimethyl Ethers
(diesel substitute)



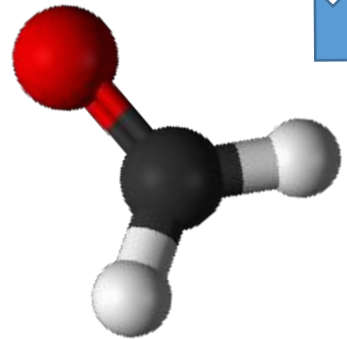
Ethanol
(~87 Mt/y)



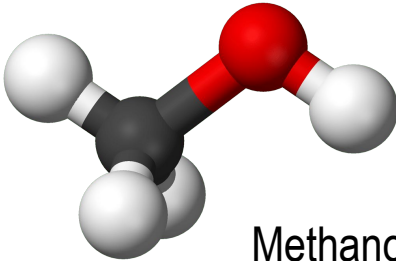
Acetic Acid (6.5 Mt/y)



Formic Acid
(~750 kt/y)



Formaldehyde (~30 Mt/y)



Methanol (~50 Mt/y)

