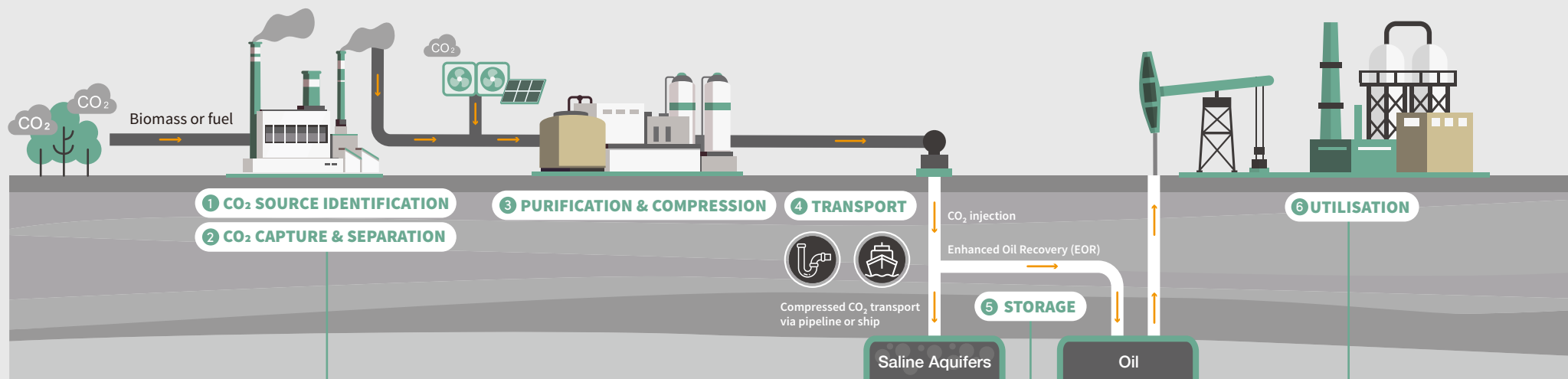


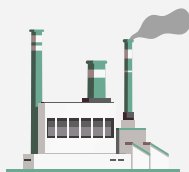
CARBON CAPTURE, USE AND STORAGE (CCUS)

CCUS is essential to unlock the full potential of decarbonisation and attain carbon neutrality

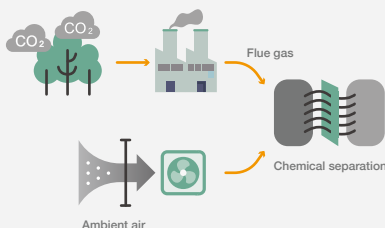


Point Sources of CO₂ in Industry

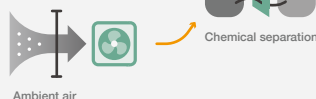
CO₂ from industries (cement, steel), hydrogen production from fossil fuels, or power generation is captured before it reaches the atmosphere and is then compressed and injected into porous rock layers.



Biomass Energy with Carbon Capture and Storage (BECCS)



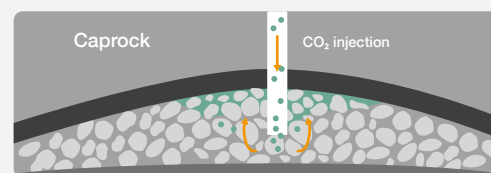
Direct Air Carbon Capture and Storage (DACCS)



Net negative emissions technologies are key to reach net-zero and then net negative emissions. In BECCS, CO₂ is taken out of the atmosphere by vegetation, then recovered from the combustion products when the biomass is burnt. In DACCS, CO₂ is captured directly from the air.

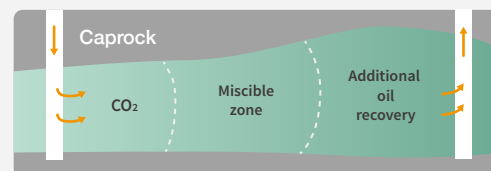
Saline Aquifers for Sequestration of CO₂

Saline aquifers are geological formations containing brine in porous rock at depths over 1km. CO₂ can be pumped down into the rock for sequestration.



Enhanced Oil Recovery (EOR)

EOR is a family of techniques that increases the recovery of oil and gas while storing CO₂. Dependent on operational choices, the volume of CO₂ stored could exceed the CO₂ content of the produced hydrocarbons.



Solutions for Carbon Utilisation



Building Materials
Aggregate, concrete



Chemicals
Methanol, ethanol



Plastics
Polymers



Mineralization
Carbonates

Carbon utilisation can unlock the commerciality of CCUS projects for the industrial, steel, cement and chemical sectors. CO₂ captured can be used as a feedstock to produce a range of products, such as concrete, methanol, ethanol, carbonates, plastics etc.



Awareness

Recognise CCUS as a viable climate mitigation option and consider it when developing national plans.



Acceptance

Develop and integrate policies to allow full commercialisation of CCUS technologies.



Finance

Create a funding mechanism for CCUS and direct investments towards modernization of energy infrastructure.