

GREEN DEAL- CIRCULAR ECONOMY

LC-GD-3-1&2-2020



— **70 years** —
1950-2020



Norwegian University of
Science and Technology

SOLID EXPERTISE



The CO₂ value chain and legal aspects (Task 1)



Solvent technology - environmental issues (Task 2)



Low emission H₂ production (Task 3)



CO₂ capture and transport-conditioning through liquefaction (Task 4)



Gas turbines (Task 5)



CO₂ capture process integration (Task 6)



CO₂ transport (Task 7)



Fiscal metering and thermodynamics (Task 8)



Structural derisking (Task 9)



CO₂ storage site containment (Task 10)



Reservoir management and EOR (Task 11)

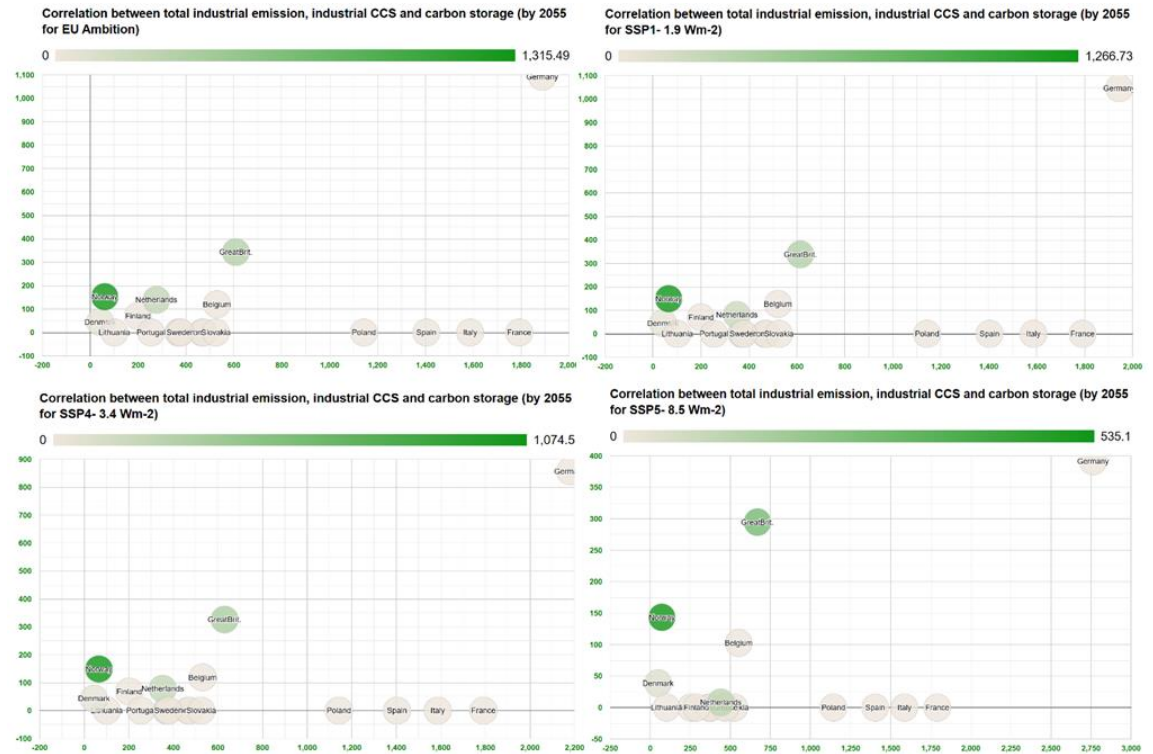
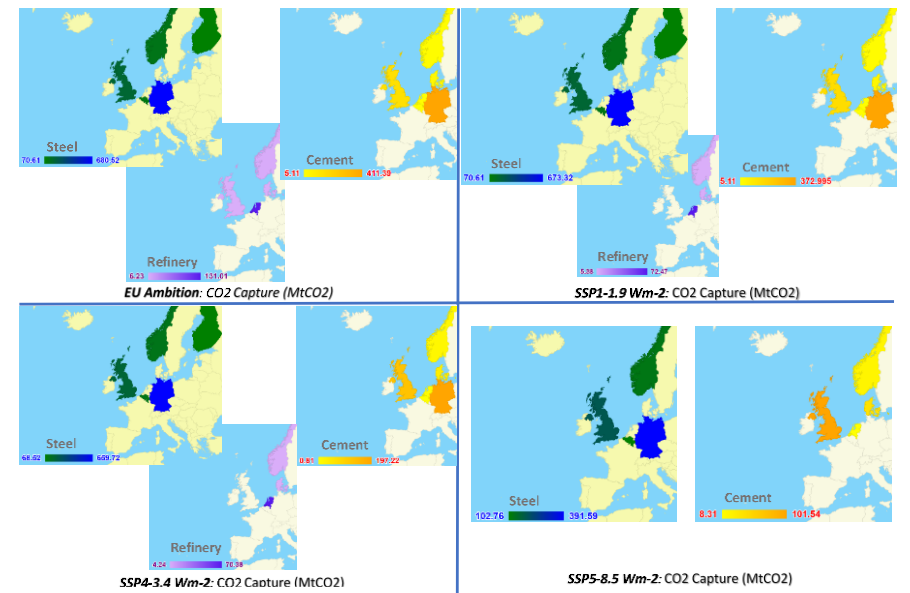


Cost-efficient CO₂ monitoring technology (Task 12)



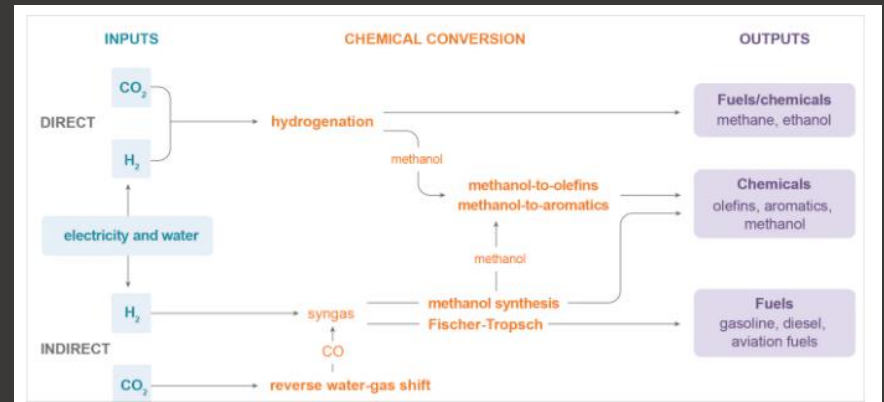
FINDINGS

Possible industrial CCS based on SSP scenarios

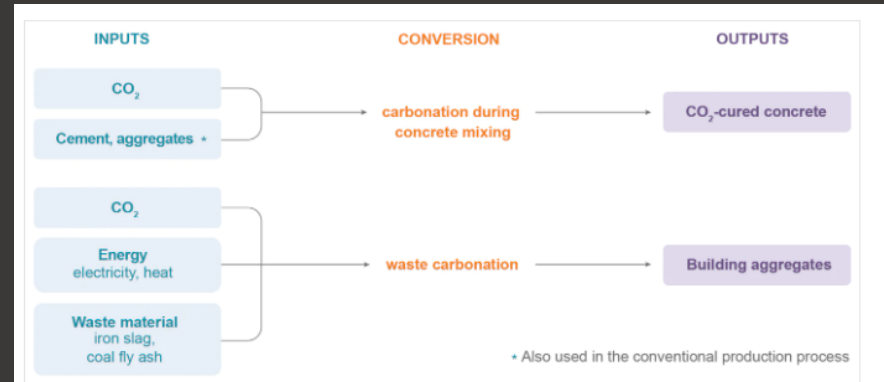


LEVERAGE POINTS

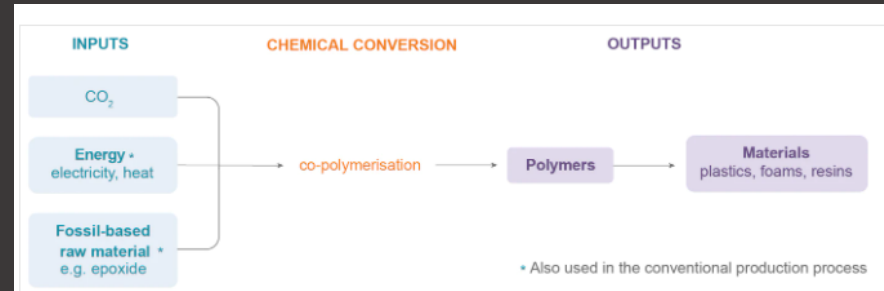
- Utilisation opportunities (IEA 2019)
- CO₂ can be used to enhance yields of biological processes, such as algae production and crop cultivation in greenhouses



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CONTRIBUTION POINTS



Value stream mapping, Big Data based Descriptive Analytics



Prescriptive Analytics
(Forecasting)



Supply Chain Planning
(Selection of alternatives, Network design, Time scheduling, Inventory Optimization)



Long & Short Term Economical Assessment of Whole Value Chain (Risk and scenario analysis)



Developing decision support tools