

# Carbon to Value

Business and technological solutions for  
a carbon-efficient future

## Executive Summary

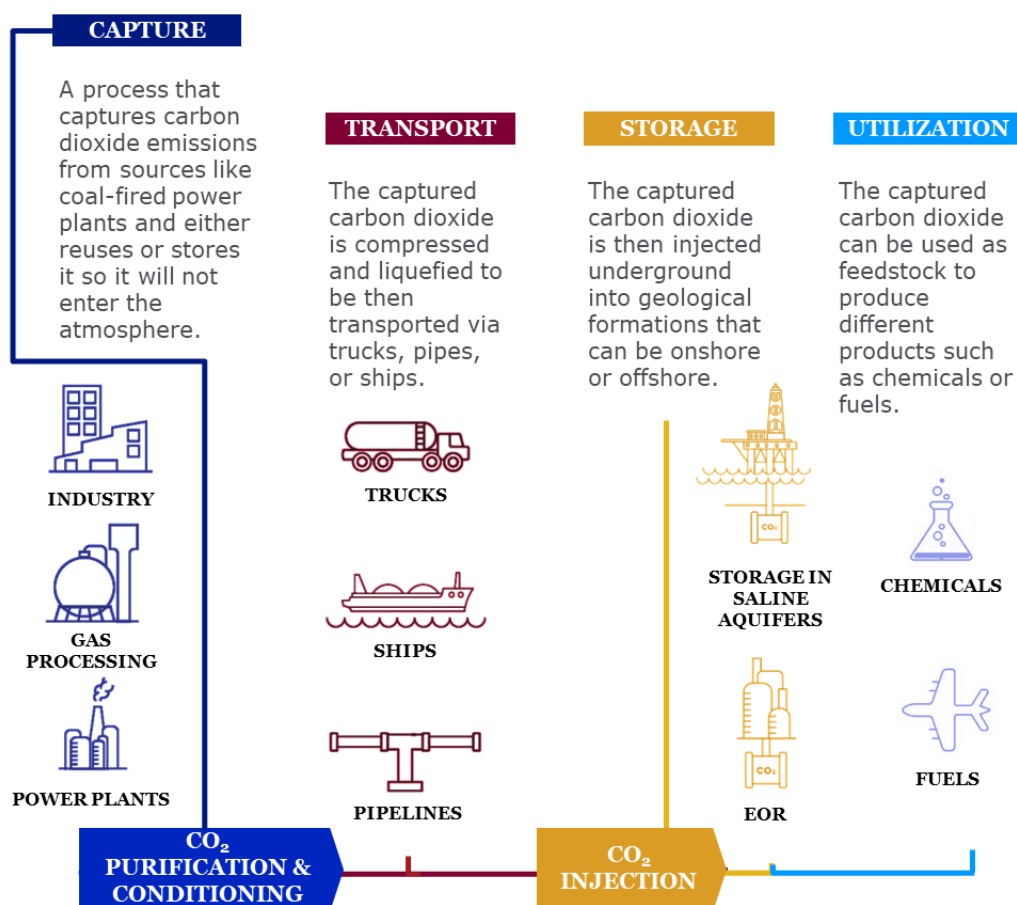
# Executive Summary

**The efficient use of CO<sub>2</sub> is crucial for your company to achieve net zero carbon emissions. Are you up to date with breakthrough technologies?**

More than 70 countries, including the largest polluters (China, US, and EU) and over 1.200 companies, have set a net-zero target, with immediate action to half global emissions by 2030.

In 2050 the transition to net zero emissions must be fully complete, this will be one of the most significant challenges that humankind has faced.

With this report, you will learn the key market and technological facts of Carbon Capture, Utilization, and Storage (CCUS) and the leading technologies being developed in response to the challenge of recycling CO<sub>2</sub>.



Source: [IEA, 2020](#) and [Global CCS Institute 2021](#)

The report highlights **25 companies**, ranging from big corporations to start-ups, and summarizes **41 patent documents** that gather technological advances towards carbon efficiency. These are grouped within the following industries: fuels, chemicals, building materials, oil recovery, consumer products, agriculture, and algaculture.

A few examples of highlighted companies:



The Swiss company Synhelion offers pioneering technologies in sustainable fuels by combining sunlight and CO<sub>2</sub>. These solar and synthetic fuels are compatible with the existing infrastructure and offer a solution for land, air, and marine transportation.



CarbiCrete offers a technology that enables the production of carbon-negative concrete by using industrial by-products and captured CO<sub>2</sub> with lower material costs, increased strength, and optimized processes.



Global Algae developed the utilization of algae farms to sequester CO<sub>2</sub> directly from the air. With this captured CO<sub>2</sub>, the technology produces consumer plastics from the algae oil and addresses the massive economic forces that drive deforestation, i.e. protein and palm oil production.



The French start-up Fairbrics developed a technology that converts waste CO<sub>2</sub> into polyester fabric using molecular chemistry.

More examples of disruptive technologies with applications in different industries are shown in the report. The knowledge-driven strategy will give you the path towards building the urgent change required.

**Will significant changes happen without significant action?**

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