# Carbon Capture and Reuse — Technology Assessment and Monitoring

**Case Study** 



# Carbon Capture and Reuse — Technology Assessment and Monitoring

Client	Integrated oil & gas player
Industry	Oil & gas/chemicals
Products	CCUS technologies

#### Context

 The client wanted to understand methods and technologies used by emitters to capture, store, and utilize CO2, as a part of the group's energy efficiency initiative.

## **Key Business Questions**

- What investment strategy is followed by each of the players for deploying CCUS?
- Which CCUS technologies are being increasingly patented and by which company/institution?

# **Engagement Scope**

# Identification of **Technologies**

- Identified the following sectors as key emitters, and thus, scanned for technologies deployed in utilities, iron and steel, paper and pulp, cement, chemicals, and refining
- Identified different technologies that can be used to capture, storage, and utilization of CO<sub>2</sub>

## 2 **Player Assessment**

- Considered large players having their own projects related to CCUS for detailed assessment
- Assessment was done on the basis of patent portfolio, publications, collaborations, R&D tools, projects, and actual implementations
- Identified key partnerships with research institutions and competitors for technology development

### 3 Patent Landscape

- Identified patents and analyzed them on the basis of different CCUS technologies being used
- Identified key patent filers and geographical locations where these technologies are more researched

# **Key Findings** and Conclusions

- Identified leading players and their collaborations in the field of CCUS activities
- Listed down key carbon capture projects along with key milestones, and identified collaboration strategies of respective projects



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# **Research Methodology**

#### **Secondary Research**

- Conducted desk research to understand the overall carbon capture market
- Referred to paid databases and identified patents for CCUS activities

### **Primary Research**

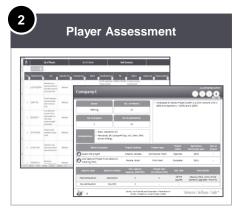
Conducted 10+ telephonic interviews with technology providers, industry experts, etc.

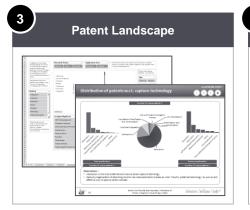
#### **Benefits to Client**

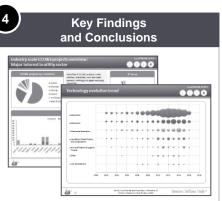
- The study highlighted large projects and collaboration strategies of active players that helped the client identify key opportunities in CCUS.
- The study identified patents and provided insights on their distribution with respect to assignee type, invention focus, combustion & capture technology, and application area.

# Sample Analysis









# Thank you

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