CARBON CAPTURE, UTILIZATION & STORAGE – THE PATH TOWARDS ZERO EMISSIONS

Carbon capture technologies, that effectively collect CO₂ from industrial processes, offer promising opportunities to combat climate change. We are exploring their potential across over 30 pilot projects worldwide, repurposing CO₂ from our plants for use in vertical farming in Spain all the way to alternative fuel in Germany.

Our expanding range of carbon capture usage and storage (CCUS) projects is designed to give us maximum flexibility in applying these technologies across our global footprint so that the best solutions in terms of technology and cost-efficiency can be replicated in other plants in selected regions, advancing our CO₂ reduction journey and adding value in the form of CO₂-related materials, thereby creating new growth opportunities for the company.

The Plants of Tomorrow are a key enabler for reducing CO₂ footprint and preparing for Carbon Capture, Utilization and Sequestration (CCUS) solutions. We’re looking ahead to future-proof our operations and to meet and exceed customers’ needs today and in the future. Leading the sector in Industry 4.0 and process innovation deployments, we strengthen the performance, circularity and carbon neutrality of our assets and sites to better serve our global customer base, while ensuring profitability and protection of our people and the environment. Addressing climate change will require the adoption of state-of-the-art, innovative approaches that include digital solutions to maximize clinker reactivity, predict product quality as well as the use of alternative materials and fuels.

Through our pioneering innovations -- cutting across automation and robotics, artificial intelligence, predictive processes, maintenance, and quality -- we are upgrading our production processes, reconfiguring the infrastructure of our sites and building a more efficient and greener future.

FACTS AND FIGURES:

- Over 30 projects in Carbon Capture, Utilization and Sequestration
- Achieving Holcim’s 2030 CO₂ Target of 520 kg/t cementitious
- Meeting Westküste100 targeted 100 percent Carbon Impact at Cement Plant

GLOBAL IMPLEMENTATION STATUS:

- For the latest news, please refer to our Carbon Capture Vision page

Interested in more information on this initiative? Then follow HOLCIM MAGER for more insights!