

thyssenkrupp Calvion GmbH and TKMS sign MoU to Develop Carbon Capture Calciner and CO₂ Purification Solutions for Advanced Direct Air Capture in Canada

- thyssenkrupp Calvion, TKMS, and Heirloom are joining forces to advance large-scale carbon dioxide removal in Canada and support the country's clean technology ambitions.
- The collaboration combines Heirloom's limestone-based DAC approach with thyssenkrupp Calvion's strengths in engineering, calcination, system integration, and CO₂ purification.
- The initiative is expected to unlock investments in Alberta, strengthen local industry participation, and create high-value jobs within a growing low-carbon economy.

Kiel / Edmonton / Ennigerloh, June 11, 2026 – thyssenkrupp Calvion GmbH, engineering partner for industrial decarbonization, has entered into two Memorandums of Understanding (MoUs) together with TKMS, leading European supplier of system solutions for naval defense, and Heirloom Carbon Technologies, leading US-American DAC company, to advance large-scale carbon dioxide removal in Canada. The initiative is intended to support Canada's ambition to become a leading exporter of clean technologies, while also creating high-quality jobs and strengthening Alberta's industrial base.

The collaboration centers on combining Heirloom's cost-efficient Direct Air Capture (DAC) approach, based on limestone, with thyssenkrupp Calvion's expertise in industrial engineering, plant scale-up and system integration. In particular, Calvion contributes its capabilities in calcination, materials handling and large-scale plant delivery, complemented by CO₂ purification and compression technologies from across the thyssenkrupp group. The MoUs establish a framework for targeted investments in Alberta in line with Canada's Industrial and Technological Benefits (ITB) policy.

As part of the collaboration, thyssenkrupp Calvion is developing a next-generation Carbon Capture Calciner based on its oxyfuel expertise, supported by a concept for electrification-ready platforms from SaltX Technology, to enable efficient, scalable carbon removal and industrial decarbonization.

“Through TKMS, we are combining thyssenkrupp technologies to advance Direct Air Capture in Canada,” said Philip Glörfeld, Chief Sales Officer at thyssenkrupp Calvion. “From limestone calcination to CO₂ purification and compression, this collaboration with Heirloom builds scalable carbon removal infrastructure, while the resulting know-how will benefit decarbonization across other emissions-intensive industries globally.”

The partnership directly supports Canada’s ITB policy by ensuring that Canadian companies benefit from technology transfer, expertise, intellectual property access and capital investment. In addition, the collaboration aims to strengthen local value creation by enabling participation of Canadian suppliers across the value chain.

Heirloom Carbon Technologies contributes its expertise in accelerated mineral carbonation, a process that significantly enhances the natural absorption of CO₂ by minerals. This approach supports the establishment of a cost-effective and scalable carbon removal value chain in Alberta.

“Canada’s natural resource base, workforce and technical capacity are a compelling foundation for carbon removal research, development and large-scale deployment. The synergy of our partnership with thyssenkrupp Calvion lays the foundation for investments that remove carbon, produce low carbon fuels, create durable jobs, and cement Canada’s place in a decarbonizing global marketplace,” said Max Scholten, Head of Commercialization at Heirloom.

About thyssenkrupp Calvion

thyssenkrupp Calvion is a leading engineering partner for industrial decarbonization, delivering scalable solutions across four core fields: Cement with focus on Oxyfuel technology, Direct Air Capture (DAC), Green Quicklime, and Phosphogypsum Recycling. Based on its flash calcination technology and extensive process experience, thyssenkrupp Calvion is able to serve a wide range of industrial markets and applications. With decades of process expertise and a strong track record in large-scale plant execution, the company supports emissions-intensive industries on their path toward a competitive low-carbon future. Driven by a strong innovation mindset and agile ways of working, thyssenkrupp Calvion transforms advanced process know-how into reliable, industrial-grade technologies that unlock new value streams. Its electrification-ready platforms and CO₂-focused solutions help customers reduce emissions quickly while strengthening long-term operational resilience.

About TKMS

TKMS is one of the world's leading naval companies with more than 9,700 employees (including temporary workers) at three shipyards in Kiel, Wismar and Itajaí (Brazil), and with locations worldwide. The company is active as a systems supplier for submarines and naval surface vessels as well as for maritime electronics and security technologies. Around 3,700 employees work at the Kiel site, making it the largest shipyard location in Germany. 185 years of history and the constant striving for improvement allow the company to set new standards time and time again. TKMS offers its customers worldwide tailored solutions to meet the highly complex challenges of a changing world. The driving forces behind this innovative energy are the company's employees, who shape the future of TKMS with passion and commitment every day.

More information at: www.tkmsgroup.com

About Heirloom Carbon Technologies

Heirloom is a climate technology company scaling a next-generation Direct Air Capture (DAC) platform that provides the most cost-effective path to gigaton-scale carbon removal. Founded in 2020, Heirloom is accelerating the deployment of DAC technology that harnesses natural carbon mineralization to capture CO₂ directly from the atmosphere. The company is backed by leading climate-focused investors including Bill Gates' Breakthrough Energy Ventures, Carbon Direct Capital Management, Ahren Innovation Capital, Prelude Capital, and LowerCarbon Capital.

More information at: www.heirloomcarbon.com

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