



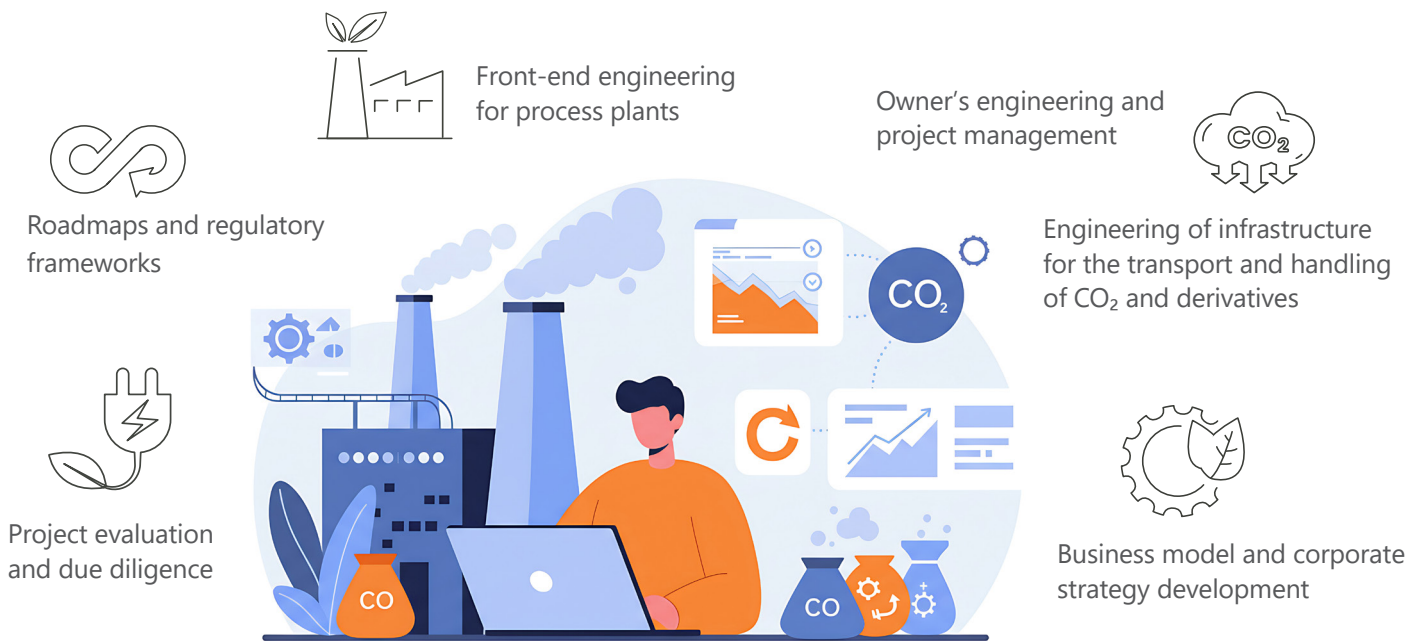
CARBON CAPTURE, UTILIZATION & STORAGE (CCUS)

Tailor-made solutions for climate-neutral industry – Fichtner advises you all the way from the initial idea through to the turnkey plant

FICHTNER

Carbon Capture, Utilization & Storage (CCUS)

Climate neutrality is becoming a guiding principle in the industrial, energy, and transportation sectors worldwide and is at the heart of sustainable development. A key component of this is carbon capture, utilization & storage (CCUS). As an experienced engineering and consulting firm, Fichtner supports its clients along the entire CCUS value chain – from ideation, to feasibility studies and permit engineering, through to implementation of capture, transport, and storage solutions. We also develop power-to-X concepts that make synergistic use of hydrogen and CO₂, for example to produce synthetic fuels and chemicals.



The Key Elements of Our Project Management Services

Business Models and Policy Consulting

Innovative business models and a robust regulatory framework are essential for success in the dynamic growth market for carbon capture, utilization & storage (CCUS). Fichtner supports its clients with in-depth market and technology expertise – from the analysis and selection of suitable carbon capture technologies, to transport and application concepts, through to integration into emissions trading systems such as the EU ETS.

Investors and Project Development

As the Fichtner Group, we possess comprehensive expertise in all areas of CCUS and power-to-X projects. Clients benefit from our many years of experience in the hydrogen sector and our use of proven software tools such as our “H₂-Optimizer”, an extensive cost database, up-to-date market knowledge, and a broad industry network.

Our consulting is based on:

- many years of experience in the power plant sector
- proven software tools such as Aspen HYSYS
- a detailed cost database
- up-to-date market knowledge

Support as Owner's Engineer

The engineering, construction and commissioning of plants and infrastructure based on new technologies poses technically demanding challenges for contractors and entails considerable risks for owners. As your owner's engineer, we at Fichtner combine our many years of expertise in power plant technology and CCUS to provide expert support for your project right from the start. We handle the interdisciplinary planning of all contract sections, coordinate all permitting procedures, and competently support you throughout all project phases until successful commissioning.



Our Team and Expertise

Carbon Capture Expertise

Our specialists use state-of-the-art process simulation software (including Aspen HYSYS and Aspen Plus) to make carbon capture processes efficient from conceptual design through to commissioning.

Midstream Group

We have extensive expertise in the planning and operation of transport, distribution, and storage infrastructures for CO₂. Be it pipeline networks, compression stations, or underground caverns – our experts develop tailor-made concepts to ensure safe and cost-efficient supply to your facilities.

Green Chemicals

In close cooperation with renowned technology partners, we implement projects for producing green chemicals, including ammonia and methanol plants based on renewable energies and green hydrogen.

Holistic Carbon Management

From the emission source, to capture and transport, through to permanent storage or utilization of CO₂ – we offer you an

integrated service package. This includes site analyses, risk assessments, and integration into national and international certification and trading systems.

Owner's Engineering and Project Management

Our teams bring together more than 100 years of project experience. We manage planning, procurement, construction supervision, and commissioning, while also handling schedule, cost, and quality management.

International Project Experience

Having completed over 50 CCUS projects worldwide, we have first-hand knowledge of country-specific regulations, subsidy requirements and market conditions.

In-Depth Energy Industry Expertise

Our decades of experience in the engineering of power plants and large-scale facilities mean we have a wealth of industry knowledge. That know-how is incorporated into every CCUS and power-to-X project to provide you with innovative, tried-and-tested solutions.

Comprehensive Expertise in All Areas of the Value Chain

Fichtner has comprehensive engineering expertise across the entire CCUS value chain: from selecting suitable capture processes (amine scrubbing, potassium carbonate, oxy-fuel) to planning CO₂ transport infrastructure, through to geological storage or the utilization of CO₂ in power-to-X processes. Our experts support the technical design, permit engineering and implementation of CCUS projects in industry, energy and waste management. We also advise on combining hydrogen and CO₂ to produce synthetic fuels and chemicals. Our expertise extends to upstream and downstream processes such as water treatment, wastewater treatment and reuse, and cooling systems. We develop interdisciplinary strategies and energy-economic business models for successful decarbonization. Our team of engineers, energy economists and consultants provides end-to-end solutions tailored to your specific needs from a single source.

FICHTNER

Fichtner is one of the leading independent engineering and consultancy firms for infrastructure projects. With its home office in Stuttgart, Germany, and its subsidiaries, affiliated companies, branches and project offices throughout the world, the Fichtner Group can call on a global network of experienced experts for planning and executing projects in the fields of energy, water, environment, transportation and IT. Fichtner's focus is on providing independent consultancy to develop bespoke solutions that best meet the needs of its clients.

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