

Global Status of CCS 2024 report at a glance



Project development has surged over the past seven years. Operating capture capacity is on track to double as facilities under construction come online. The 2024 CCS project pipeline is at record levels for both facility count and CO₂ capture capacity.



Collaboration has been crucial. Multilateral government initiatives such as the Clean Energy Ministerial, Mission Innovation and the Carbon Management Challenge and other public-private partnerships are increasing ambition and advancing CCS. Private sector collaboration across industries is accelerating innovation and project development.

Key Statistics

Record number of projects in CCS pipeline

237 CCS facilities added to project pipeline since 2023 Global Status Report

628 total projects in CCS pipeline up 60% year on year

- 50 CCS facilities in operation globally
- 44 in construction
- 534 in development

Direct Air Capture (DAC) projects are emerging

3 Commercial DAC facilities operational

16 in various stages of development

CCS is a key abatement technology across industry and power generation

79 capture facilities are operating or in construction across the following industries: bioenergy/ethanol, cement & concrete, chemicals, hydrogen/ammonia/fertiliser, iron & steel, natural gas/LNG, oil refining, gas and coal power generation & heat, waste to energy.

More projects are advancing through development stages

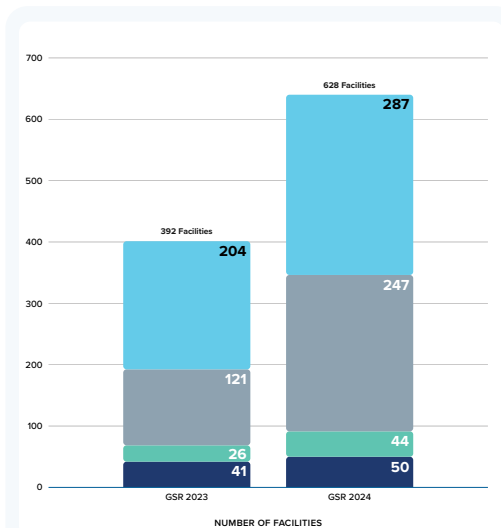
The number of capture projects in Front End Engineering & Design and storage projects that have completed or are completing field development plans have more than doubled in 12 months - **from 121 to 247**.

416 Mtpa total CO₂ capture capacity in project pipeline, giving a compound average growth rate since 2017 of 32%

Transport and storage projects pave the way for growth in capture capacity by enabling future capture projects

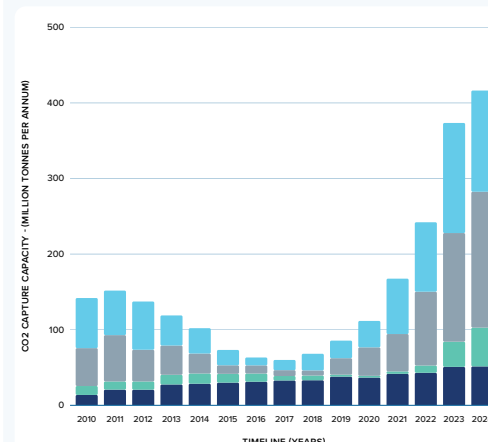
7 CO₂ transport and/or storage projects are under construction

212 CO₂ transport and/or storage projects are in feasibility or engineering studies.



Global operating CO₂ capture capacity on track to double to 100 Mtpa when facilities under construction begin operating

- Current operating CO₂ capture capacity: 51 Mtpa
- CO₂ capture capacity under construction: 51 Mtpa



Key

- Early Development
- Advanced Development
- In Construction
- Operational

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CCS has an essential role in meeting climate targets. Leading nations have or are establishing policies and regulations to drive investment in the CCS industry. Collaboration between the public and the private sectors is applying the collective knowledge and capabilities of governments, companies and researchers to remove barriers, decrease costs and develop projects.



Americas

Federal funding and policy incentives continue to drive investment in CCS in North America, while regulation is being developed in Brazil.

The US government continues to directly fund new investment through the Bipartisan Infrastructure Law. Approximately US\$10 billion has been awarded (or is in negotiations) to support carbon management and clean hydrogen hubs.

Canada's federal carbon price increased by CA\$15 a tonne in April 2024 to CA\$80/tonne and will rise by CA\$15/tonne annually, reaching CA\$170/tonne by 2030, with all provincial programs required to meet this federal benchmark.

On 8 October, **Brazil** became the first South American country to enact CCS-specific legislation, providing a benchmark framework for other South American nations.

Asia Pacific (Apac) & India

Hubs and cross-border CCS projects are the dominant CCS trend in Asia.

Malaysia and **Indonesia** are seeking to develop all aspects of the CCS value chain to manage domestic emissions and store imported CO₂ for a fee.

Japan, Singapore and **South Korea** are actively seeking to develop transnational CCS value chains and to export CO₂ for storage in **Malaysia, Indonesia** or **Australia**.

Indonesia, South Korea, and **Japan** have all released regulatory frameworks, with **Malaysia** expected to table its regulations late in 2024.

Australia amended legislation necessary to allow import of CO₂ for geological storage.

Europe & UK

European decarbonisation policies are driving the emergence of a robust CCS project pipeline.

- EU Industrial Carbon Management Strategy was released.
- The Net-Zero Industry Act came into force in June 2024 setting an EU-wide target of 50 Mtpa CO₂ injection capacity by 2030.

Austria, Denmark, France, Germany, Norway, Poland, Sweden, Switzerland and the **UK** have introduced or announced industrial carbon management strategies or roadmaps for CCS deployment. **Denmark** and **Sweden** have committed to providing financial support for the reduction of biogenic CO₂ emissions and Denmark has issued its first onshore CO₂ storage exploration licence.

In October 2024 **the UK government** announced up to £21.7 billion of funding support over the next 25 years for 2 CCS clusters.

Middle East & Africa

The region is increasingly focussing on CCS as part of its decarbonisation strategies.

The **UAE** announced its Industrial Decarbonisation Roadmap which includes CCS. The UAE Long Term Strategy envisages 43.5 Mtpa of CCS capacity by 2050.

The Kingdom of Saudi Arabia's state-owned oil company, Saudi Aramco, announced an increase in its CCS target to 14 Mtpa CO₂ by 2035.

Oman launched its CCUS and Blue Hydrogen Framework.

Kenya announced a 1 Mtpa Direct Air Capture project.

Combined, these are expected to contribute to a projected regional CCS capacity of at least 65 Mtpa by 2035.

China

CCS is prominent in Chinese climate policy.

The Implementation Plan for Green and Low-Carbon Technology Demonstration was launched providing financial support to recognised decarbonisation projects, including CCS. **Six of the first 47 selected projects are CCS-related** including the world's largest capture plant on a coal-fired power plant currently under construction that will capture 1.5 Mtpa CO₂.

China announced a new action plan to reduce emissions from its coal fired power fleet to levels comparable to gas fired plants by 2027. CCS is one of three main strategies to achieve this alongside co-firing with low-carbon ammonia or biomass.

Collaboration between governments and the private sector is advancing CCS

Over 50 MOUs or agreements between governments have been executed since 2020 that include CCS within their scope.

Multilateral government initiatives such as the Clean Energy Ministerial, Mission Innovation and the Carbon Management Challenge are increasing ambition, sharing knowledge and supporting development.

Private sector collaboration and public-private partnerships are accelerating CCS technology and business model innovation.



Read the full Global Status Report of CCS 2024 [here](#)

Find out more about CCS and carbon management [here](#)