GLOBAL STATUS OF CCS 2025

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Global Snapshot

GLOBAL STATUS OF CCS

Number of facilities in operation rises 54%

77

Number of facilities in operation rises 54% year on year

64 Mtpa

Capture capacity in operation rises 25% year on year

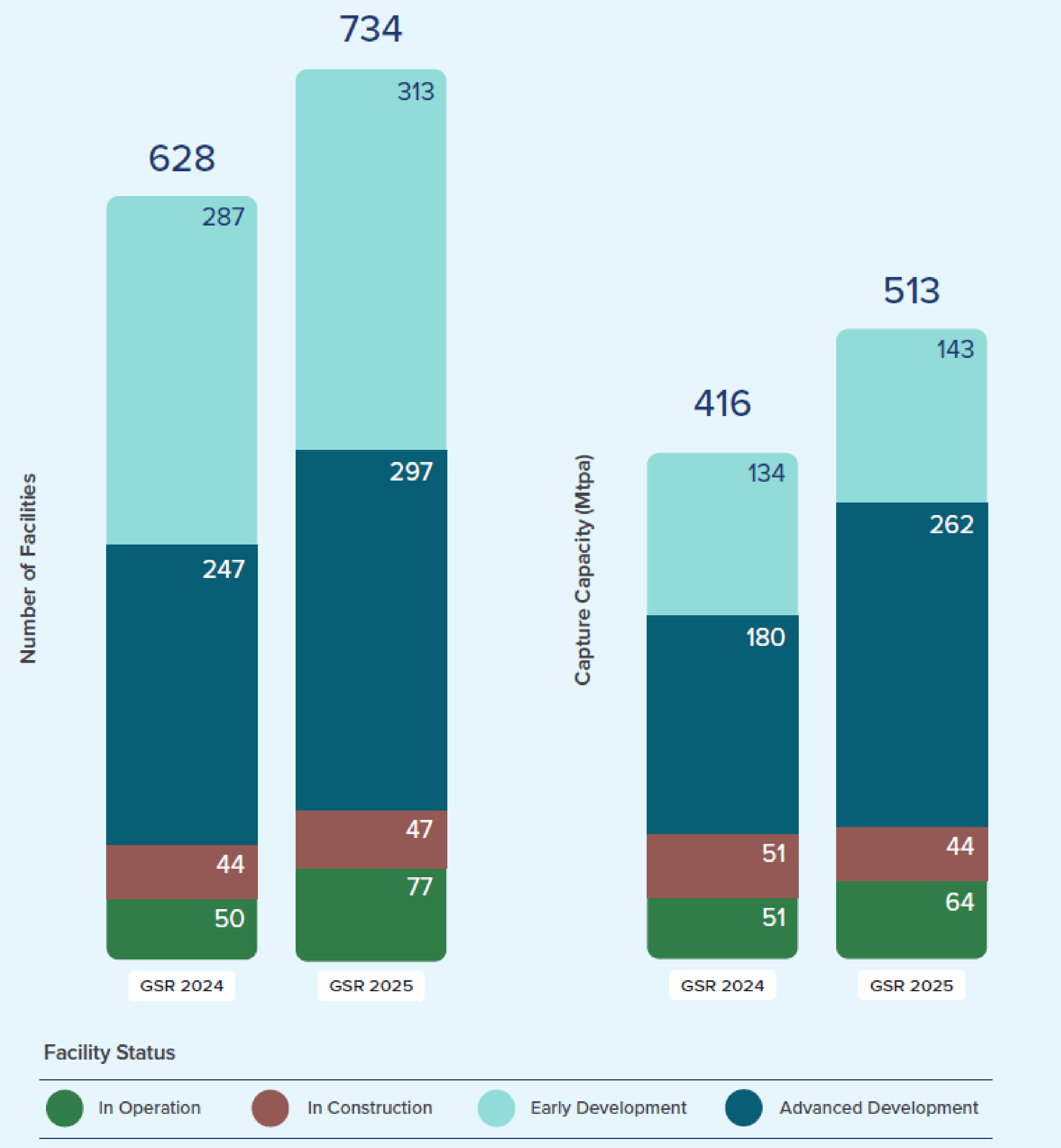
513 Mtpa

Total capture capacity rises 23% year on year

44 Mtpa

Capture capacity in construction in July 2025

Commercial CCS facilities by number and total capture capacity



Global Snapshot

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WHERE THERE'S POLICY, THERE'S PROJECTS

Notable policy advances over the past 12 months are providing greater certainty for investors

46%

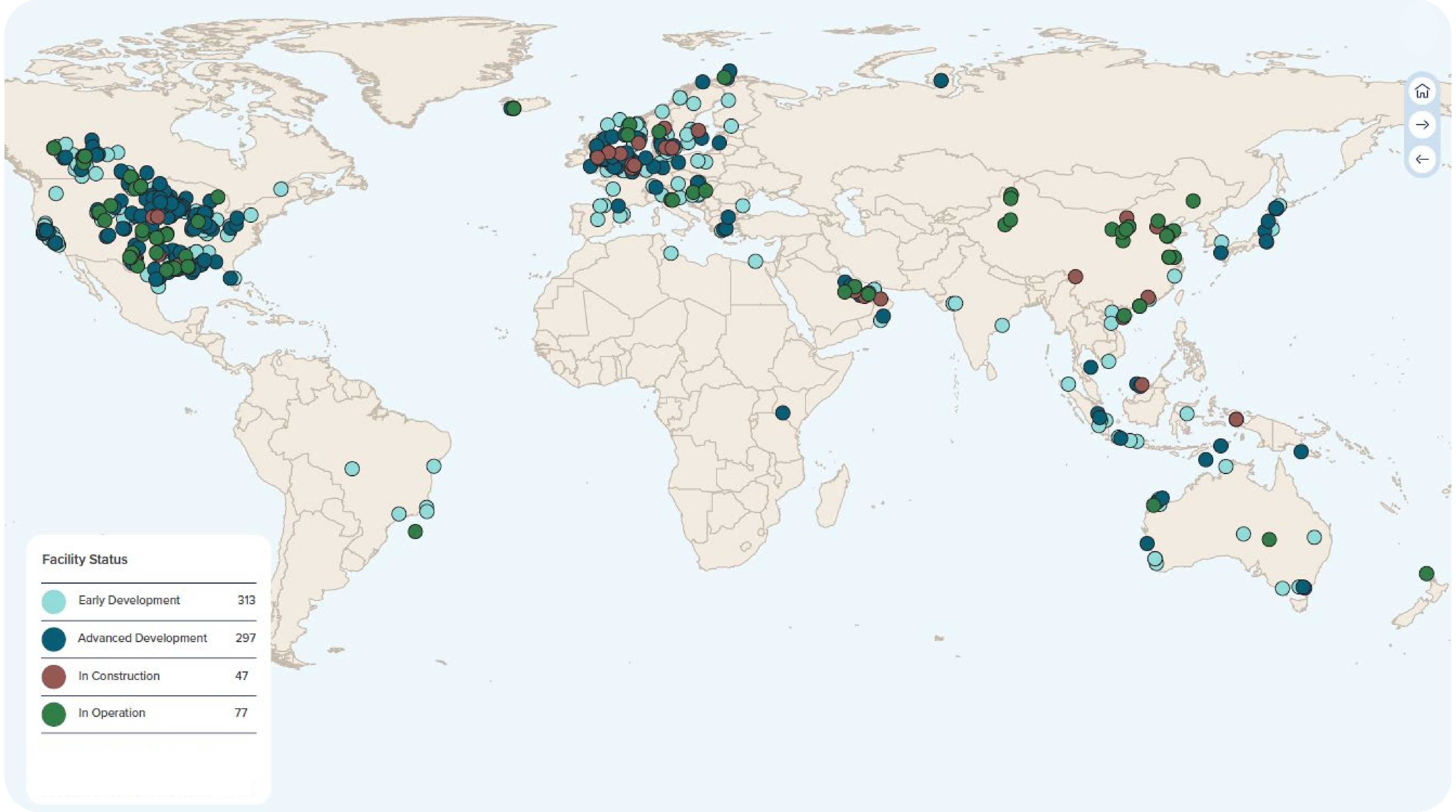
Increase in the capture capacity of facilities in advanced development (FEED) from 180 to 262 Mtpa.

734

Total number of facilities rises 17% year on year

513 Mtpa

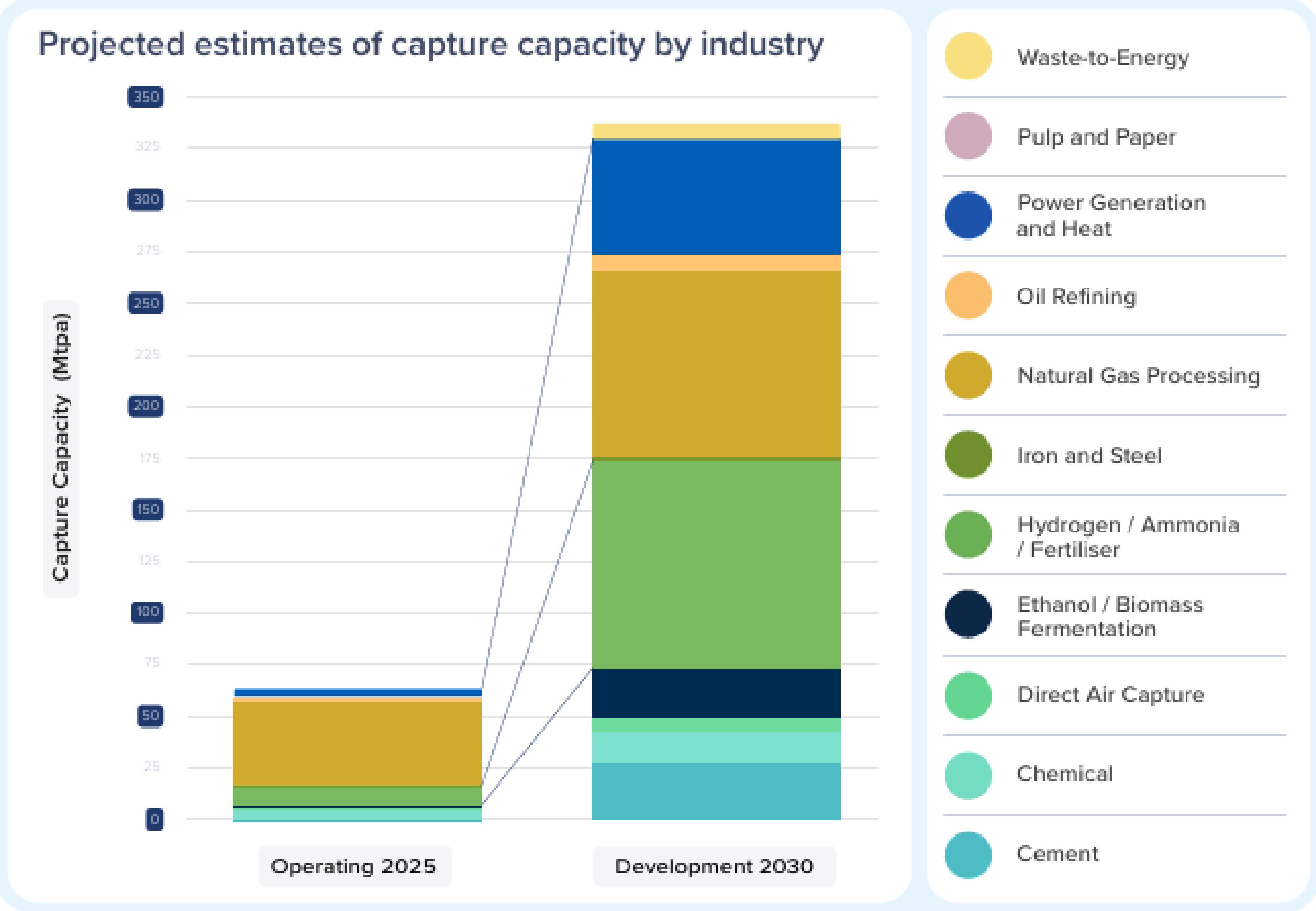
Total capture capacity rises 23% year on year

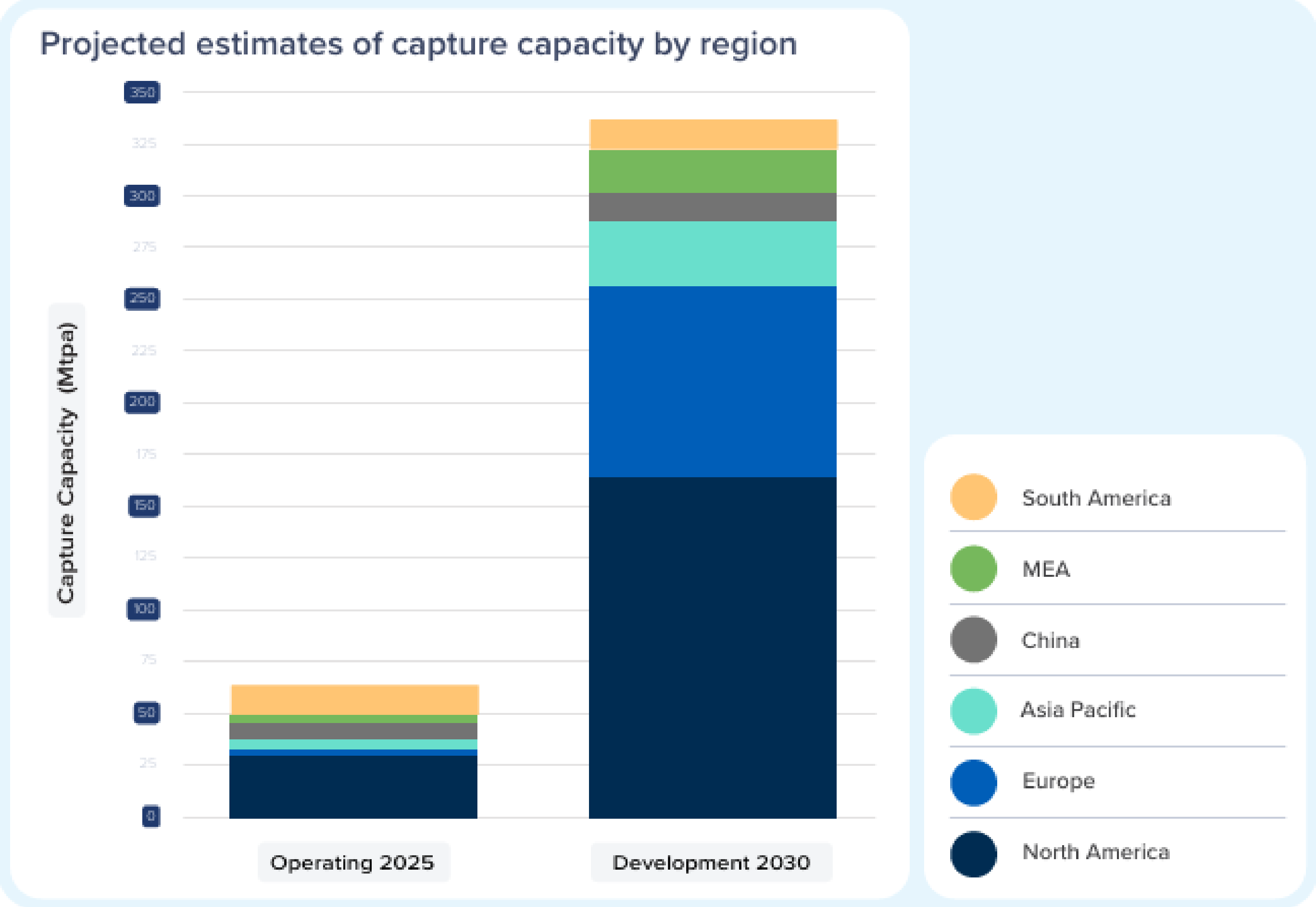


Global Snapshot

OUTLOOK TO 2030

Expansion across all industries gaining pace, led by low-carbon hydrogen





Regional Spotlight

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JAPAN

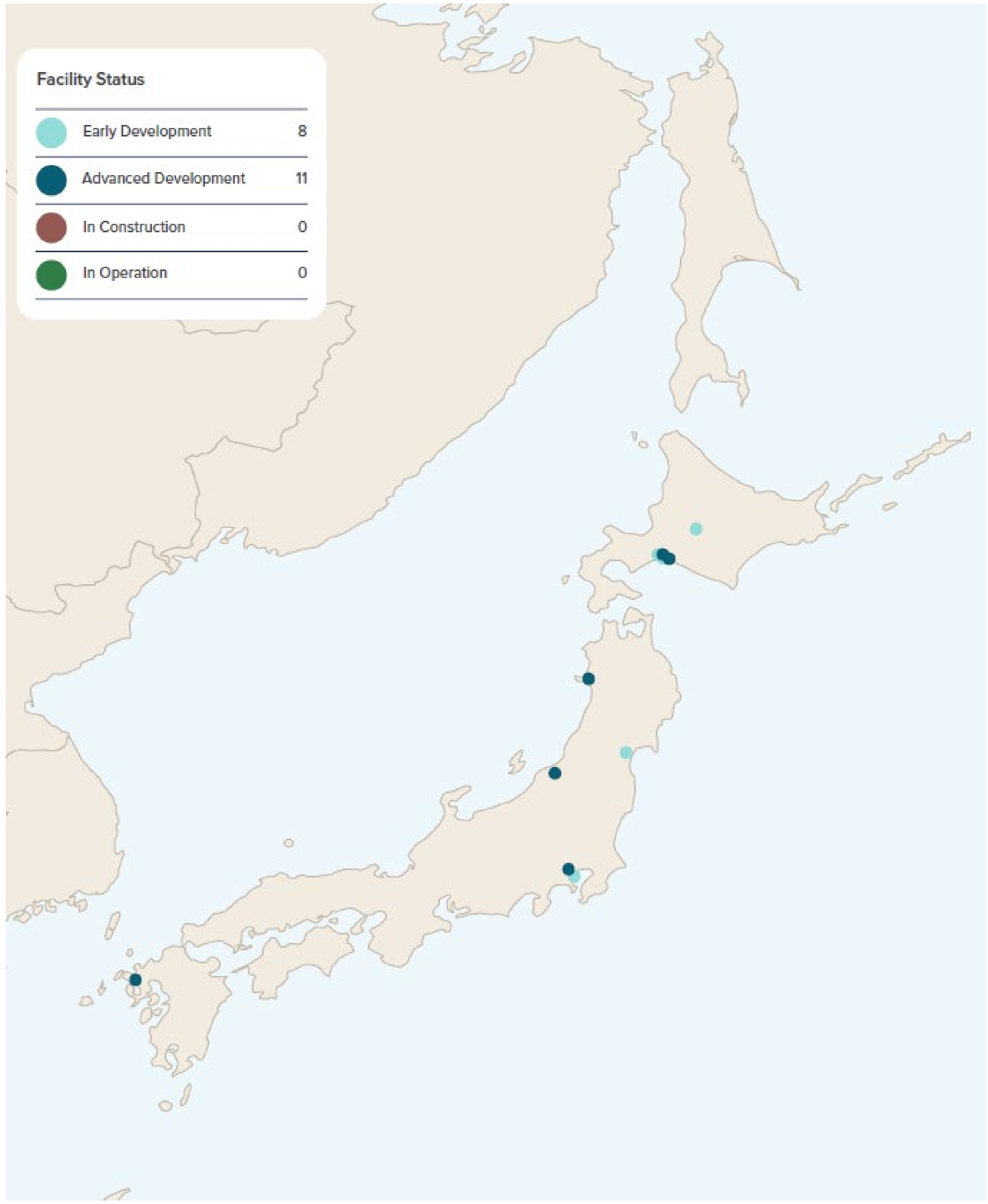
Clear policy shifting CCS closer to commercial reality

Momentum: Govt reaffirms CCS as core to 2050 net zero; nine projects & 240 Mtpa roadmap.

Drivers: 2024 CCS Act enables licensing & pipelines; GX-ETS from 2026 spurs corporate uptake.

Progress: Govt & industry advancing CO_2 ship transport R&D, standards & cost reduction for LCO_2 carriers.

Challenge: Limited onshore storage drives reliance on partners; FIDs by 2026 need government drilling support.



Regional Spotlight

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CHINA

World's largest coal-power CCS project marks China's next phase

Foundation: Policy support strengthening since 2024, with CCS embedded in sectoral transition plans, especially coal power.

Milestone: Huaneng's 1.5 Mtpa coal power CCS project positions China as global leader in fossil decarbonisation.

Progress: Tech manufacturing and demos advancing; Chinese firms improving efficiency, cutting costs, scaling CCS solutions.

Momentum: 15th Five-Year Plan could embed CCS, providing long-term policy clarity and national alignment.

Image courtesy of Huaneng Clean Energy Research Institute

Regional Spotlight

APAC & INDIA

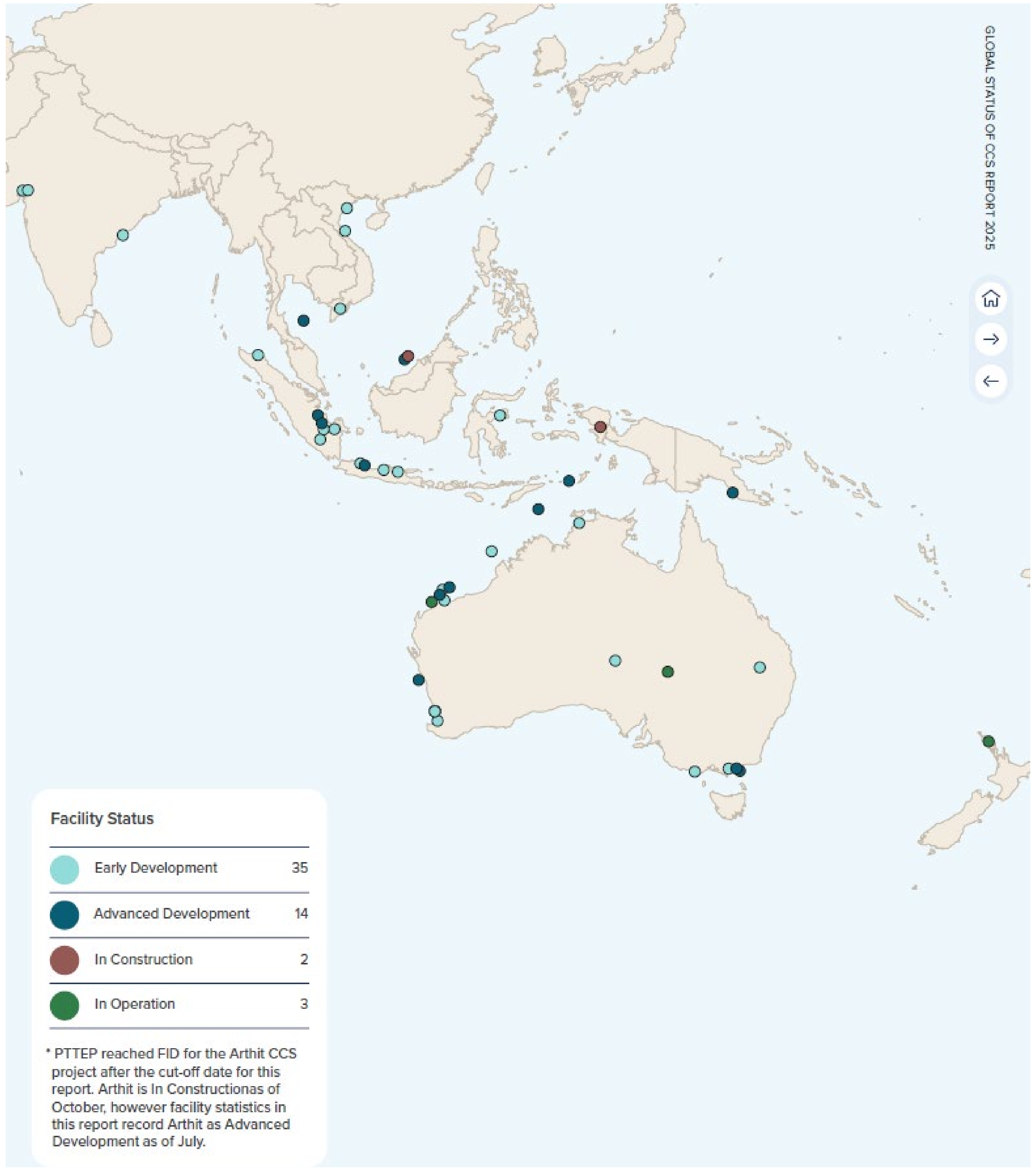
Critical role of CCS creating both opportunities and challenges

Progress: Key regulatory gains in Australia, Indonesia & Malaysia.

Collaboration: Cross-border CO_2 trade advancing as governments strike deals & companies form JVs/MoUs.

Challenges: Low-cost CCS applications moving ahead, but higher-cost projects lack policy support.

Momentum: New projects and studies announced as CCS opportunities gain traction.



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MIDDLE EAST & AFRICA

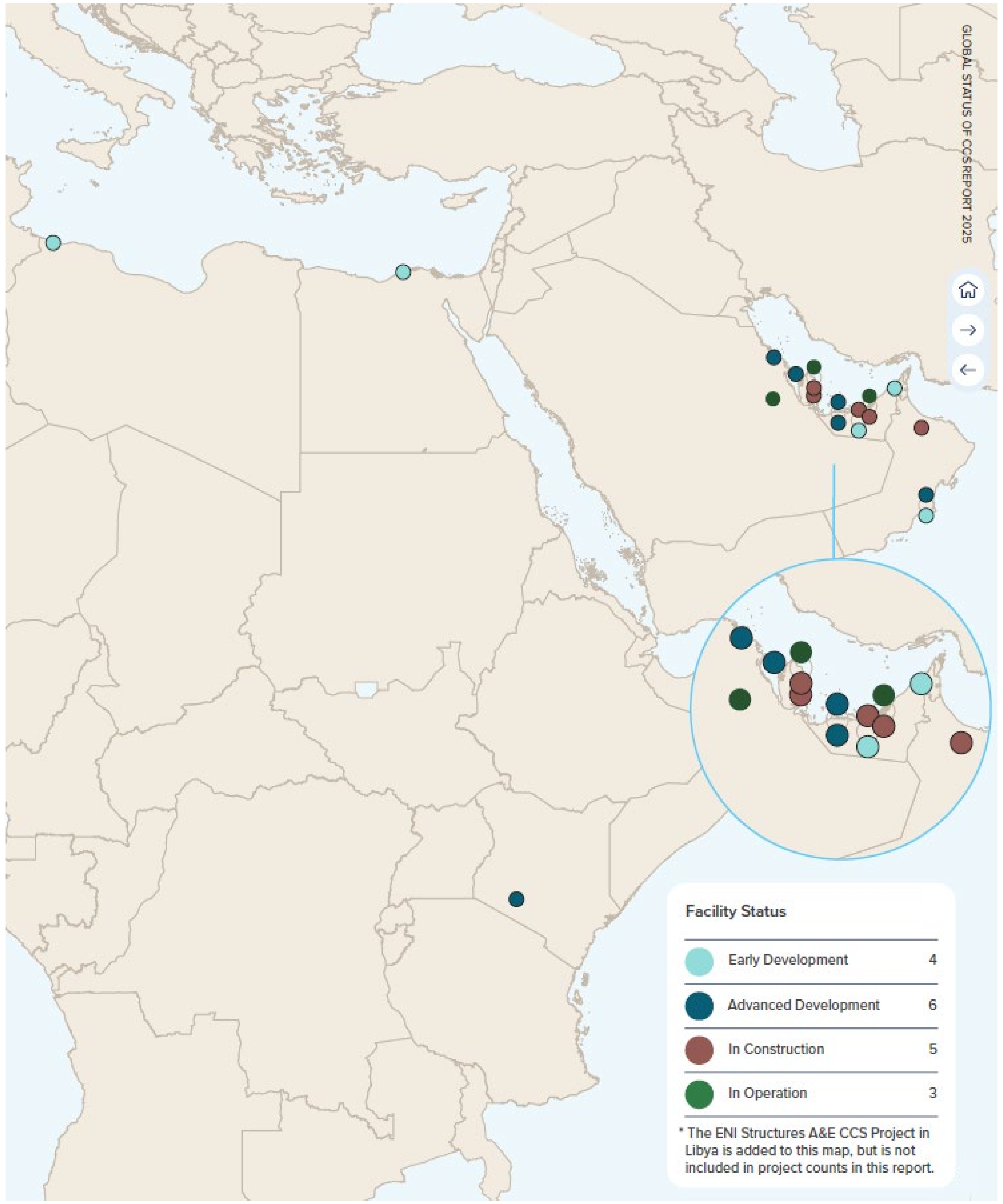
Ambition in motion as focus shifts from strategy to implementation

Drivers: Net zero targets, industrial mandates & carbon rules driving policy shifts, private engagement & global partnerships.

Focus: Region prioritising CCS hubs & value chains for decarbonisation & low-carbon exports.

Progress: First hub emerging in Saudi; DAC/modular pilots in Saudi, UAE & Kenya; frameworks advancing region-wide.

Challenges: Regulatory gaps, high costs, limited finance & weak carbon markets limit scale-up.



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EUROPE

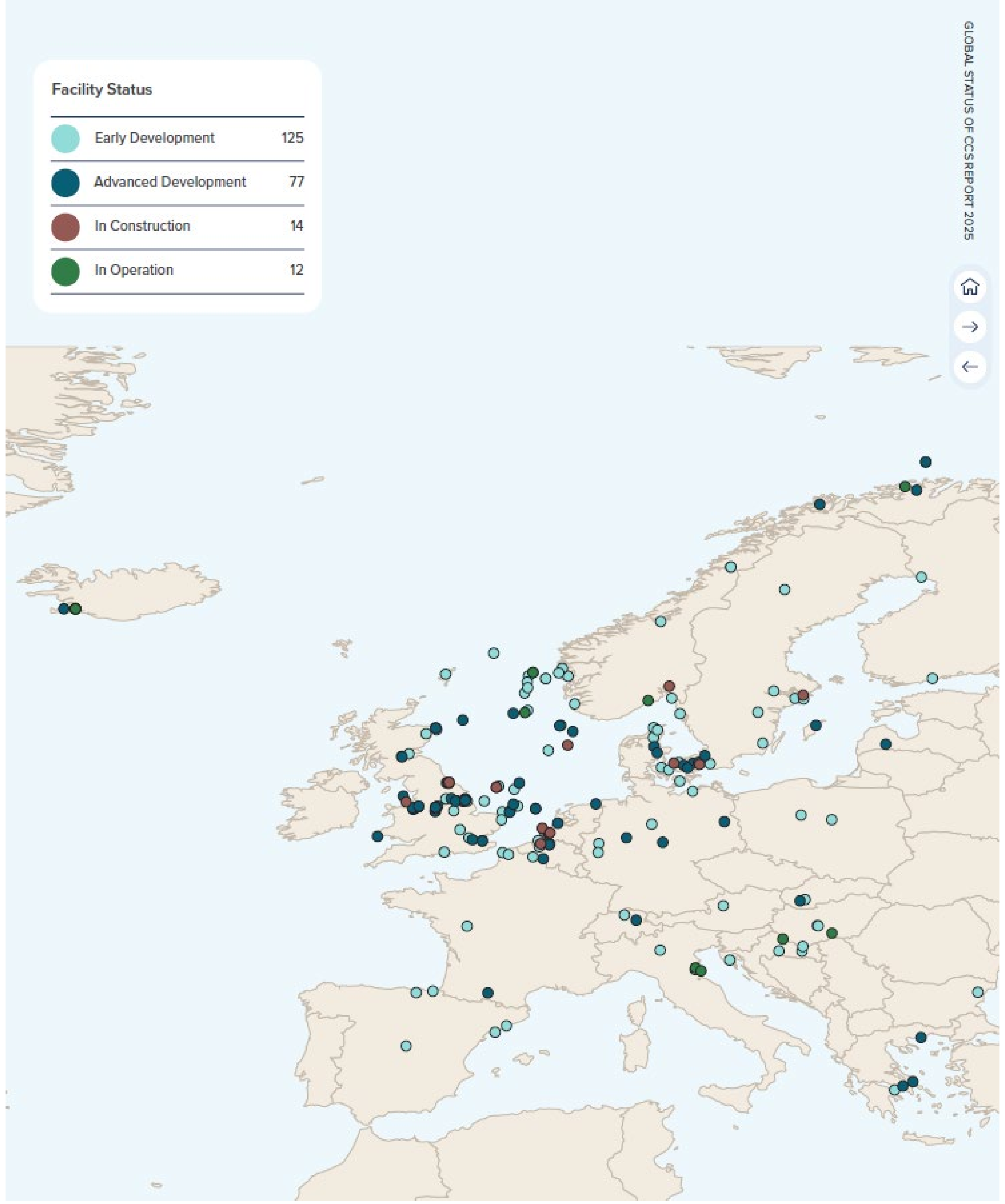
Policy alignments, tangible project progress

Policy & Investment: EU NZ Industry Act mandates 50 Mtpa CO_2 storage by 2030; Clean Industrial Deal, Carbon Removal Certification Regulation, and State Aid to drive industrial decarbonisation.

Cooperation: EU-UK ETS linkage; bilateral MoUs; EU call for evidence aimed at enabling cross-border CO_2 transportation cooperation.

Challenges: Limited offshore storage access, public opposition to onshore storage, and regulatory gaps for carbon removals remain constraints on further deployment.

Project Finance: Five projects have become operational, including Brevik CCS – the world's largest cement CCS facility. Seven additional projects have reached FID or financial close since mid-2024.



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AMERICAS

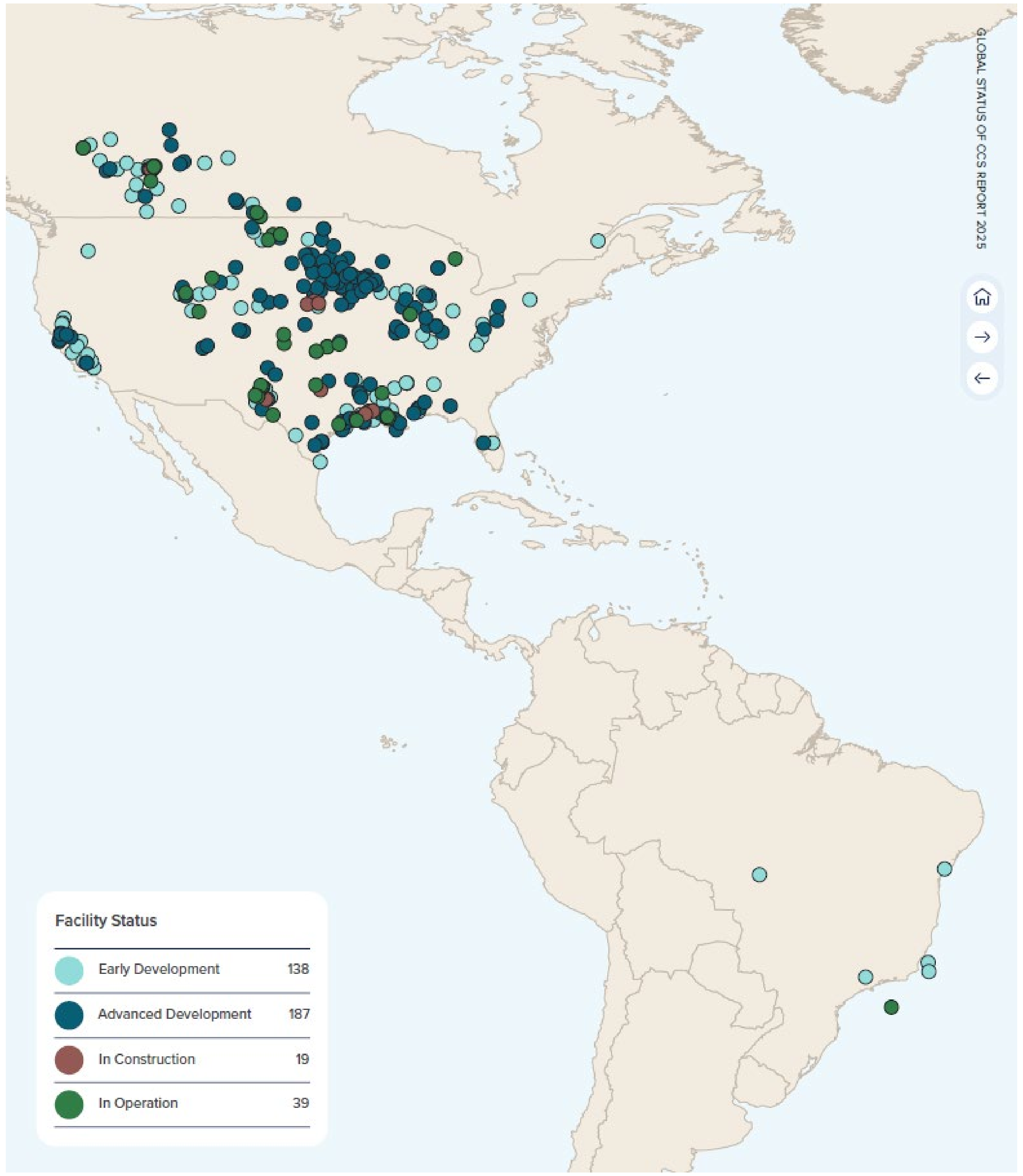
CCS progressing across region at varying rates

Dynamic: US & Canada advancing via tax policy and permitting; Brazil driving Latin America's regulatory base.

Growth: NGCC+CCS delivers firm, low-carbon baseload power for AI centres, with jobs & economic gains.

Framework: Geologic storage with enhanced recovery provides a strong business case for early CCS projects and builds infrastructure for wider deployment.

Catalysts: Incentives, revenue models & trade pressures speeding CCS uptake across the Americas.



Regional Spotlight

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UNITED STATES OF AMERICA

Some recent highlights

- **Federal government shifting priorities, but states and projects moving forward**
  - California creates pathway to lift moratorium on CO_2 pipelines
  - Texas (The Railroad Commission) granted Primacy over Class VI Wells (Nov)
- **Class VI Permits**
  - EPA: 14 permits issued
  - States with primacy: 19 permits issued
  - 282 total applications under review (EPA and States)
- **Recent Projects:**
  - Google: signed first-of-its-kind Power Purchase Agreement for decarbonized power from natural gas-fired generator with CCS (400 MW)
  - CF Industries: shipped low carbon ammonia (23,500 metric tons) to Antwerp, Belgium under Verified Ammonia Carbon Intensity Program
  - ADM: started capture operations at their Nebraska Corn Processing Complex and will transport CO_2 to Wyoming via Tallgrass' Trailblazer 400-mile pipeline.

EPA United States Environmental Protection Agency

RRC LEADING TEXAS ENERGY OIL & GAS ★ COAL ★ PIPELINES

Google

CF

ADM

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