

# Introduction of CCS & CDR Business

**Sumitomo Corporation**

Japan CCS Forum Dec 2025

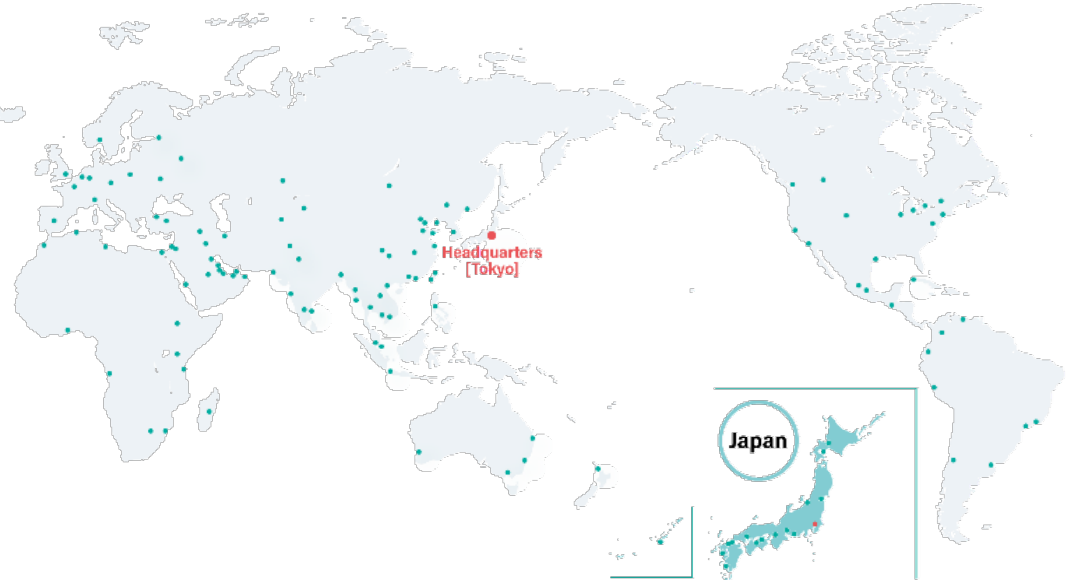


***Sumitomo Corporation***

| Enriching lives and the world

# Sumitomo Corporation at a Glance

as of March 31, 2025



\*Locations of offices are marked.

**Number of Offices** **64** countries & regions **127** locations

**Fortune Global 500**  
for 30 years

## Group Businesses



Steel



Automotive



Transportation  
& Construction  
Systems



Diverse Urban  
Development



Media & Digital



Lifestyle  
Business




Mineral  
Resources



Chemical  
Solutions




Energy  
Transformation  
Business




**Shareholders' equity**  
(equity attributable to owners of the parent)

**4.6tri yen**




**Net Income**

**561.8bil yen**



**Number of Employees**  
(Consolidated Base)

**83,327**

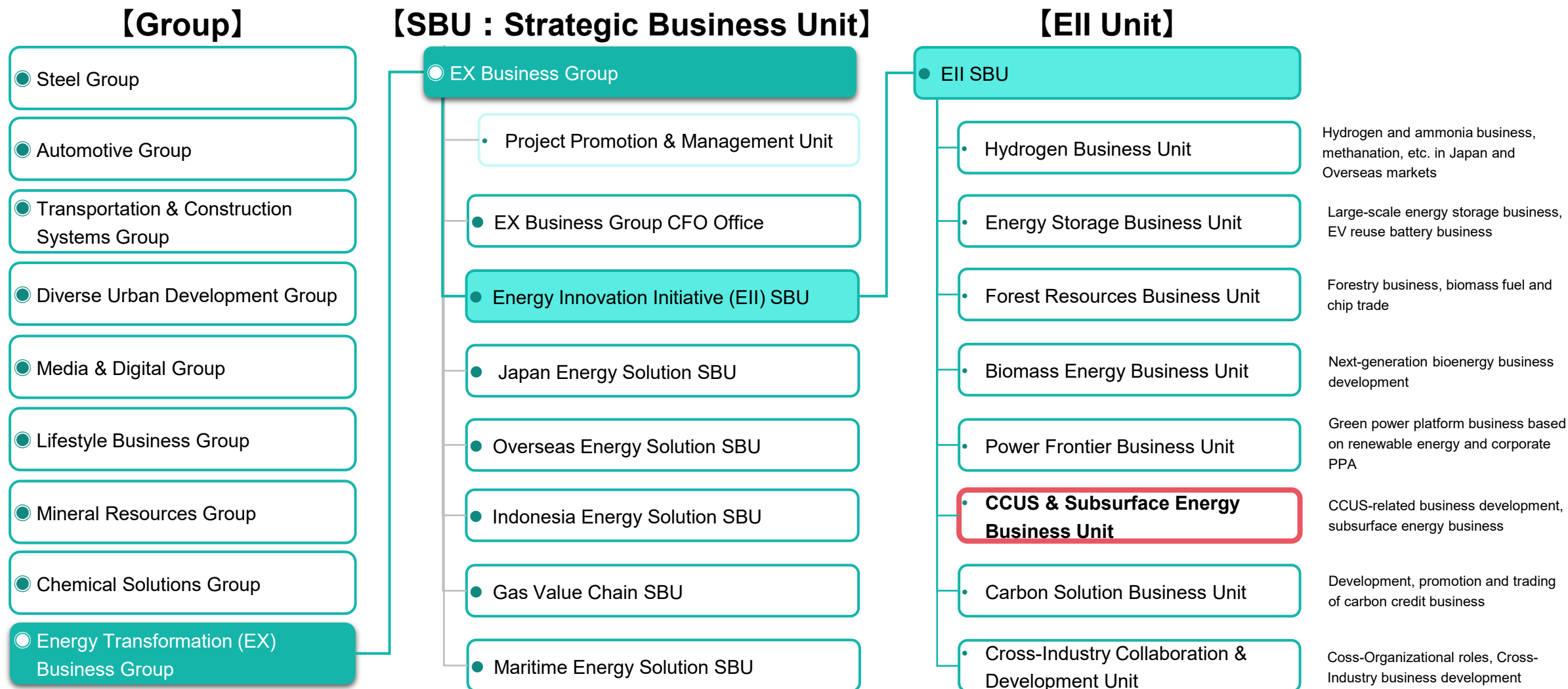


**Number of Consolidated Subsidiaries**

**507** companies  
**65** countries & regions

Consolidated Subsidiaries 315 (Japan: 92 Overseas: 223)  
Associated Companies 192 (Japan: 46 Overseas: 146)

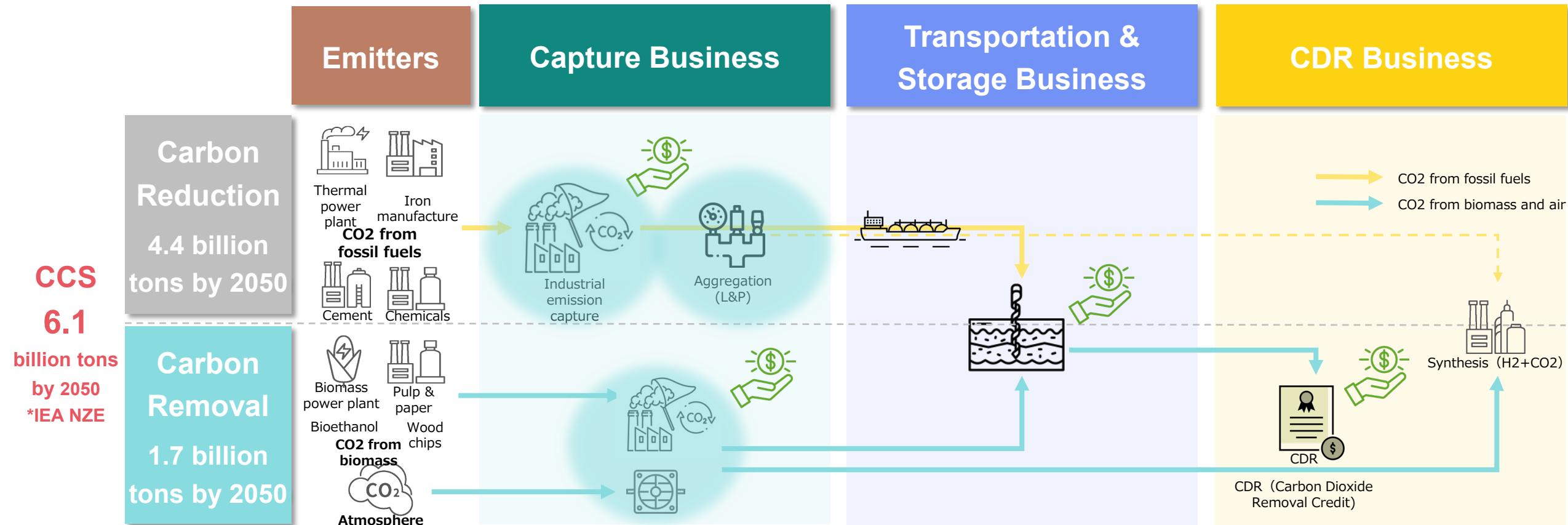
# Energy Innovation Initiative (EII) SBU Organization Chart



# Our Initiatives and Business Model for CCUS

## Our Initiatives

- Establishing CCS value chains from CO<sub>2</sub> capturing to transportation and storage.
- In the short to medium term, business development in the Americas and Europe, where regulatory frameworks are well-established. In the long term, business development of cross-border CCS (overseas T&S).
- Development and supply of Carbon Dioxide Removal (CDR) credits through the atmospheric and biogenic CO<sub>2</sub> capturing.



# Introduction of Sumitomo Corporation – Global CCUS Projects



CS License in UK SNS



CO2 Pipeline in UK



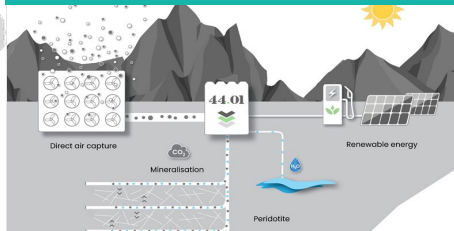
BECCS CDR in Nordic



CCS Collaboration with SNOC



CCM (Mineralization) in Oman



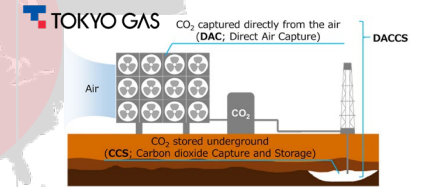
Cross Border CCS



CCS in Alberta



DACCS with Tokyo Gas



SAF & BECCS in Louisiana



**Sumitomo Corporation**

Enriching lives and the world



Mineralization



subsurface AI Solution



subsurface Analysis



CDR Developer

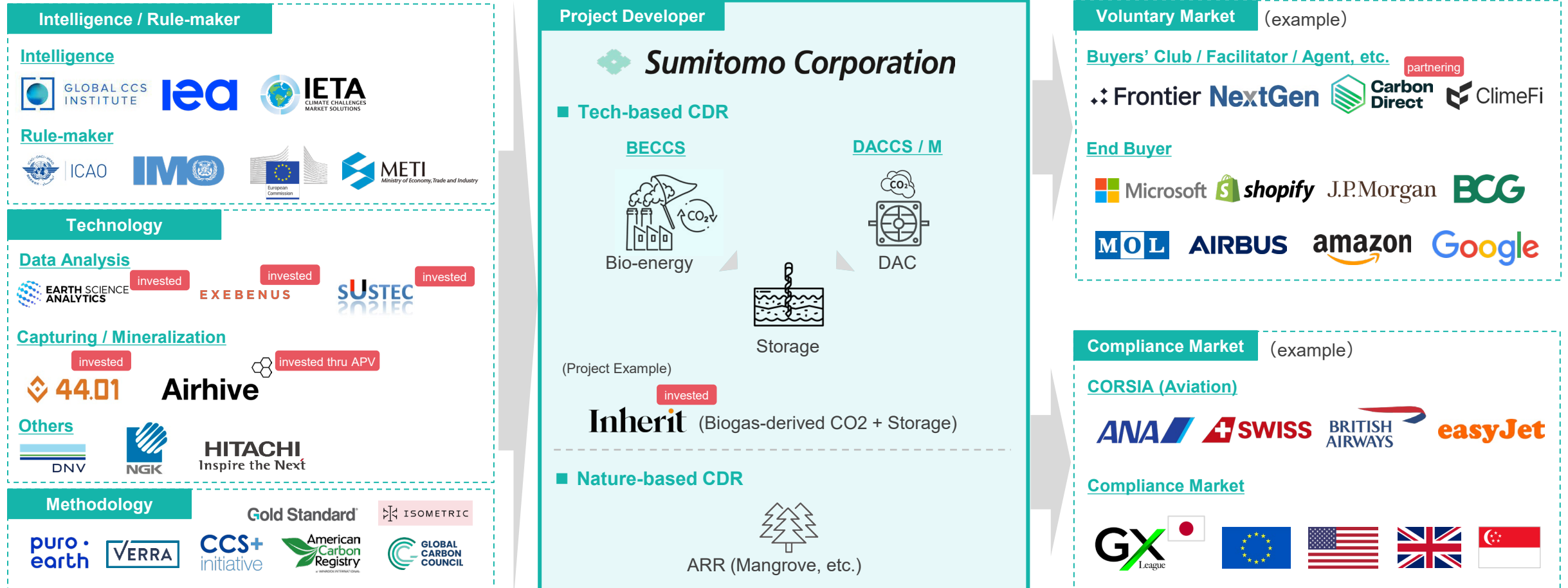


DAC  
(Invested thru APV)



# CDR Ecosystem and Sumitomo's Positioning

- **As a project developer**, Sumitomo proactively develops CDR projects globally.
- We will work towards building a CDR ecosystem including technology development and sales & marketing.



# Market Environment Review (2025)

Blue : Tailwind for the CCS/CDR  
Red : Headwinds for CCS/CDR

● **Decarbonization momentum faces headwinds, but CCS/CDR advance in both policy and markets.**

- **CCS** : US remains uncertain but 45Q is maintained; low-cost capture projects move ahead. Europe sees government-backed large projects. Japan is moving toward concrete support policy
- **CDR** : US DAC Hub support is frozen but 45Q continues; voluntary market demand expands. Policy frameworks such as SBTi and ETS integration are progressing.

Region	Policy	Market (Major Projects)
CCS		
Unites States	• <b>OBBB Act (US)</b> : 45Q/45Z extended (Jul 2025)	
Canada	• <b>Federal election</b> : Liberal gov. continues decarbonization (Apr 2025); • <b>MOU between Federal and Alberta</b> (Nov 2025)	
Europe	• <b>UK Track-1/2</b> : New gov. confirms CCS support despite budget review (Jun 2025); • <b>EU Net Zero Industrial Act</b> : CO <sub>2</sub> storage obligation for O&G (Jun 2025)	• <b>HyNet/NEP</b> • <b>Northern Lights/Green Sands</b>
Japan	• <b>Gov. support framework</b> for domestic CCS pipeline projects (Jun 2025)	• <b>Tomakomai &amp; Chiba Offshore</b>
CDR		
Global	• <b>DOE (US)</b> : DAC Hub grant funding frozen (Mar 2025); • <b>OBBB Act (US)</b> : 45Q extended (Jul 2025); • <b>UK ETS</b> : CDR integration from 2029 (Jul 2025); • <b>IMO</b> : Net-Zero Framework postponed by 1 year (Oct 2025) • <b>IPCC</b> : CCUS & CDR accounting for NDCs (Oct 2025) • <b>SBTi v2.0</b> : Stronger role for CDR in the draft v2 (Nov 2025); • <b>CORSIA</b> : CDR eligibility (DACCS, Biochar) (Nov 2025) • <b>Germany, Australia</b> : Progress in CDR Policy and Roadmap (Nov 2025)	
Japan	• <b>GX-ETS</b> : 10% credit cap, limited CDR included (Jul 2025); • <b>Japan CDR Coalition</b> : Official launch by MRI, MC, Sumitomo & Others (Sep 2025)	

## Recent Projects

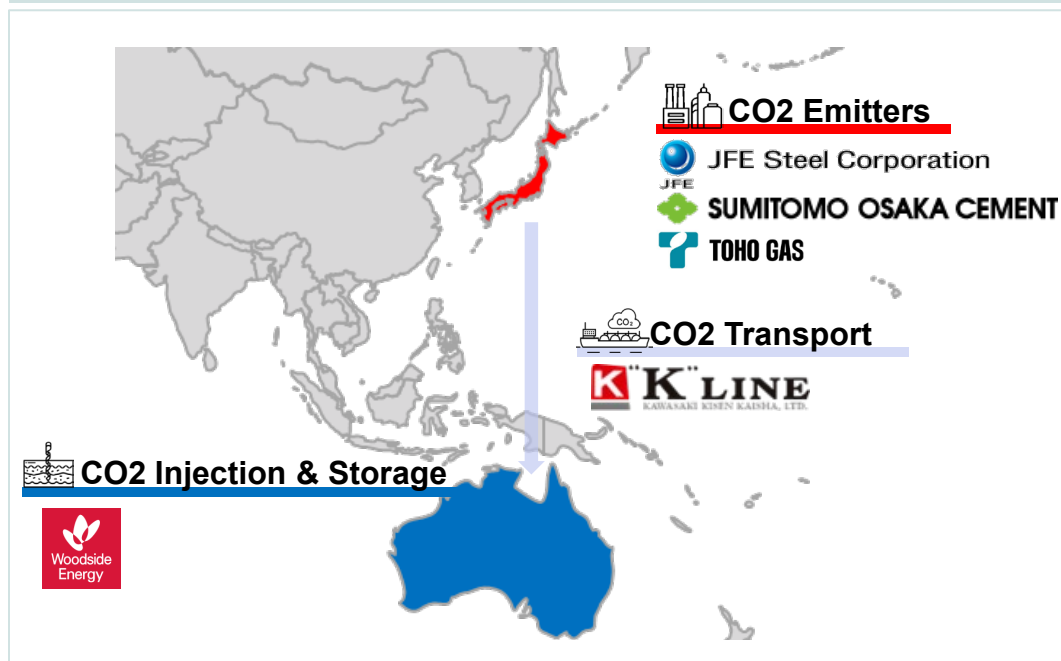


# Feasibility Study to Establish Cross-border CCS VC

News Release on October 11, 2024 : [Signed a Joint Study Agreement for CCS Feasibility Study in Alaska, USA | Sumitomo Corporation](#)  
News Release on December 18, 2023 : [MOU for Feasibility Study to Realize "Setouchi / Shikoku CO2 Hub Concept" | Sumitomo Corporation](#)  
News Release on September 7, 2023 : [MOU for Feasibility Study to Establish a Japan-Australia CCS Value Chain | Sumitomo Corporation](#)

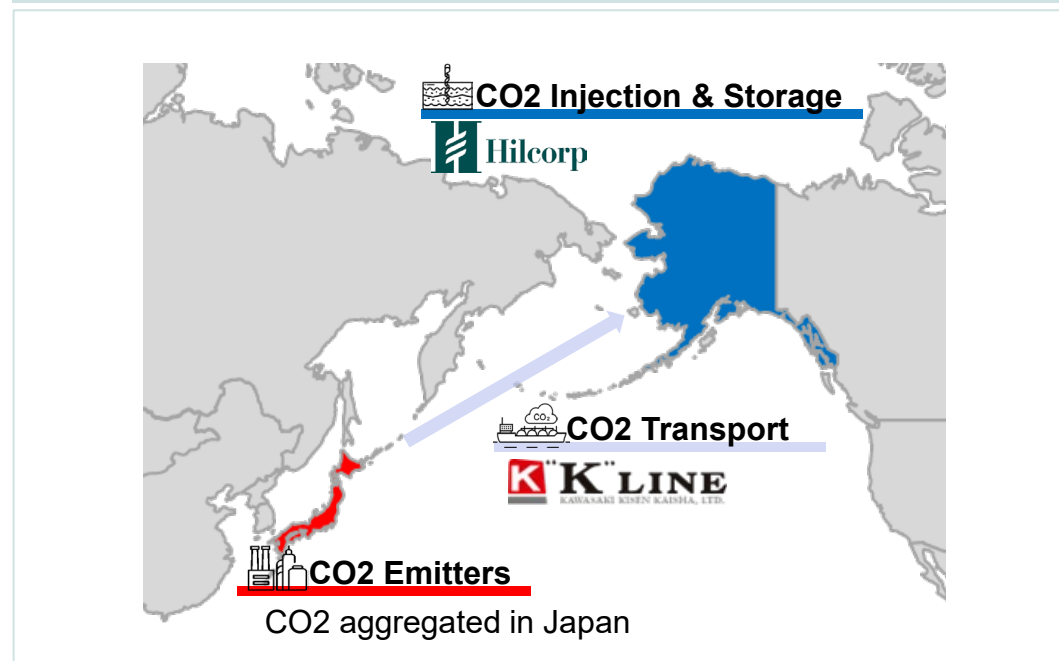
- Sumitomo conducts joint feasibility studies for the establishment of a cross-border CCS value chain between Japan and Australia, as well as between Japan and the United States.
- By achieving cost competitive cross-border CCS business, we aim to contribute to Japan's decarbonization efforts.

## Japan-Australia Cross-border CCS



**The Scene of the MOU Ceremony at the ASEAN-Japan Economic Co-Creation Forum**  
(From left, SC, "K" LINE, Sumitomo Osaka Cement, JFE Steel, METI, Woodside)

## Japan-Alaska Cross-border CCS



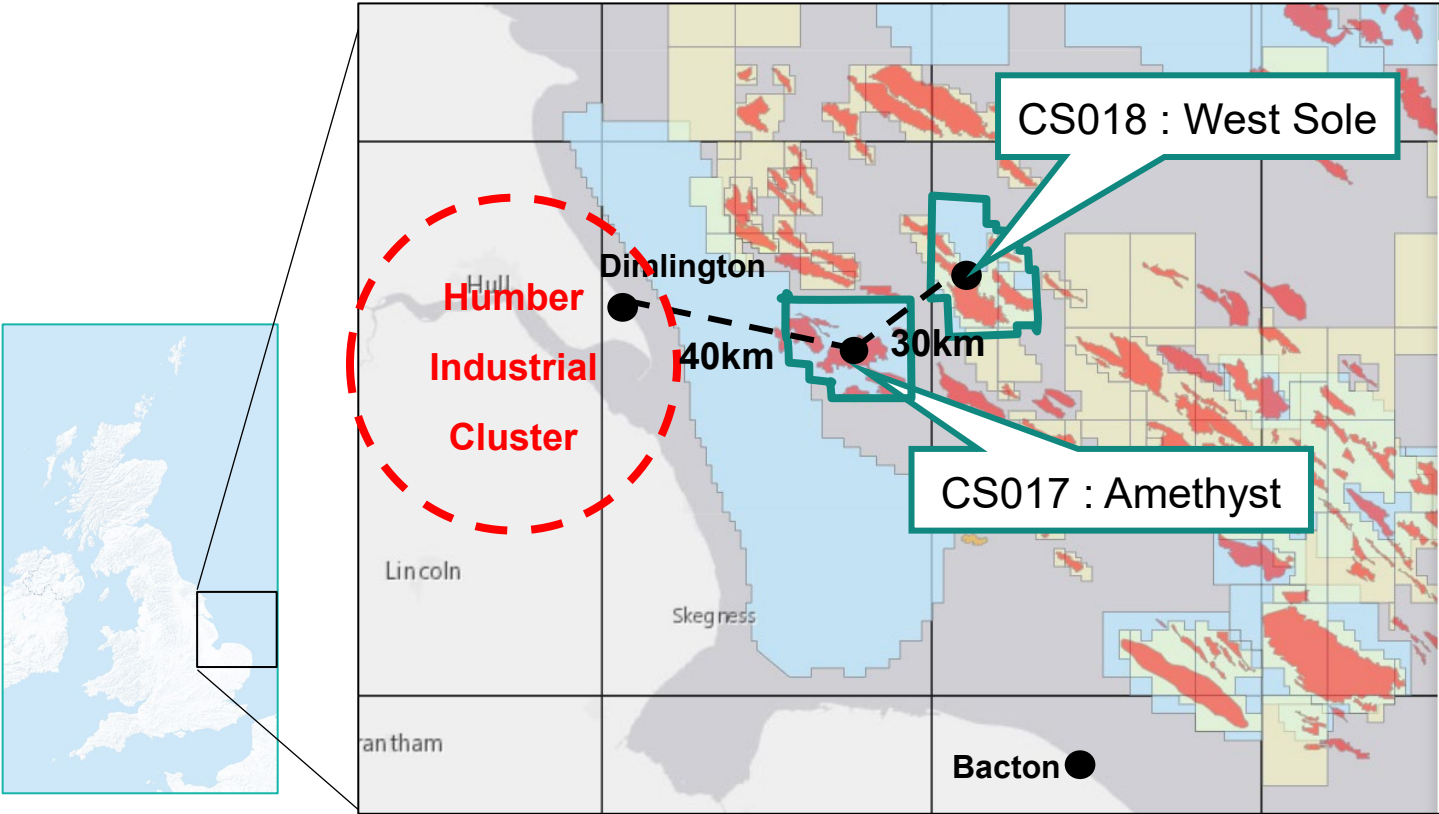
**The scene of the Signing Ceremony for the joint study agreement**  
(From left, "K" LINE, Hilcorp Alaska, SC)

# Project Orion: Acquisition of Carbon Storage Licenses in the UK

News Release on November 17, 2023 : [Acquisition of Carbon Storage Licenses in UK North Sea | Sumitomo Corporation](#)

- First license acquisition by Summit Energy Evolution Ltd (SEEL), which is a wholly owned subsidiary company of Sumitomo.
- Project Orion comprises two CS licenses cover the Perenco UK operated Amethyst and West Sole gas fields, respectively.
- Access to the number of emitters in Humber, one of the largest industrial clusters in UK.

Key Project Metrics	
Licenses	CS017 (Amethyst) CS018 (West Sole)
Partners	Perenco UK Ltd (80%, Op) Carbon Catalyst Ltd (10%) SEEL (10%)
FID	2029
Injection Start	2031
Injection Rate	Initial 1 Mtpa Maximum 6.5 Mtpa
Injection Period	30 years
Firm Work Obligation	Desktop Studies
Initial License Term	5.5 years

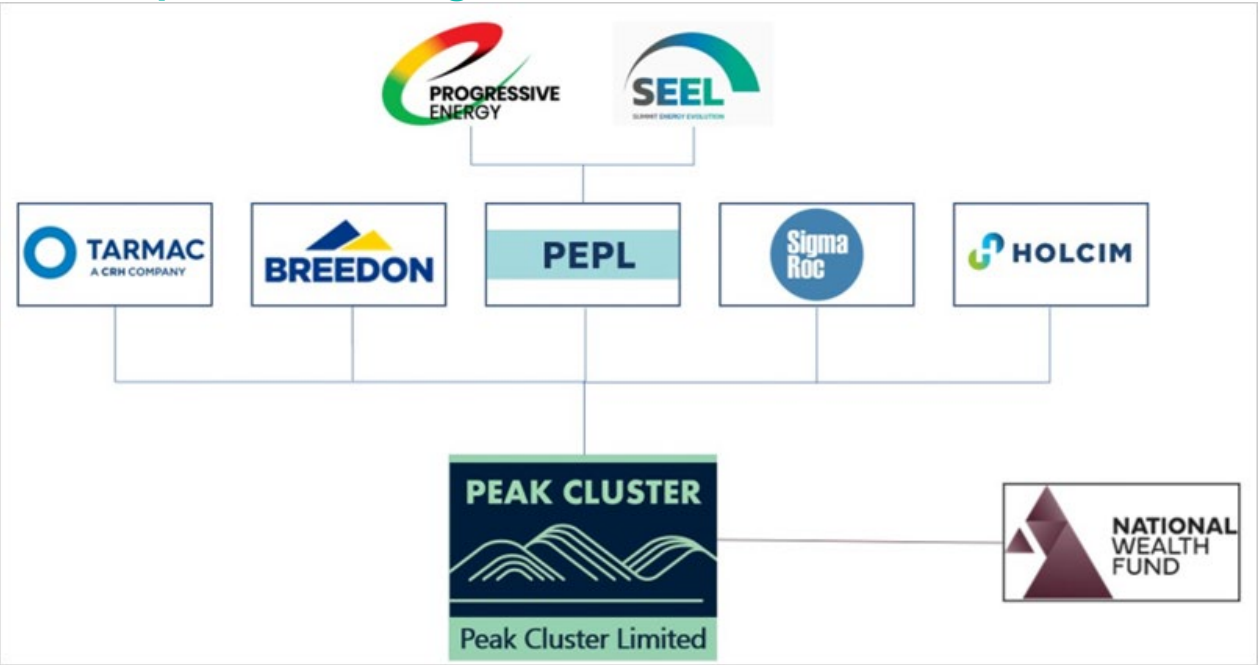


# Peak Cluster : CO2 Pipeline Development

News Release on July 8, 2025 : [Investment in CO2 transportation pipeline project to decarbonize UK cement and lime](#)

- Strategic investment into a key UK CO2 pipeline development project via SEEL, targeting hard to abate process CO2
- Aiming to transport CO2 produced in the Peak District, representing 40% of the UK’s domestic cement and lime production
- Permanent geological storage via Morecambe Bay Net Zero, one of the biggest UK CO2 storage sites

## ■ Transport and Storage Partners:



Key Project Metrics	
Pre-FID development cost	GBP59.6 mil
FID	2028~
CO2 Volume	3.0 mtpa



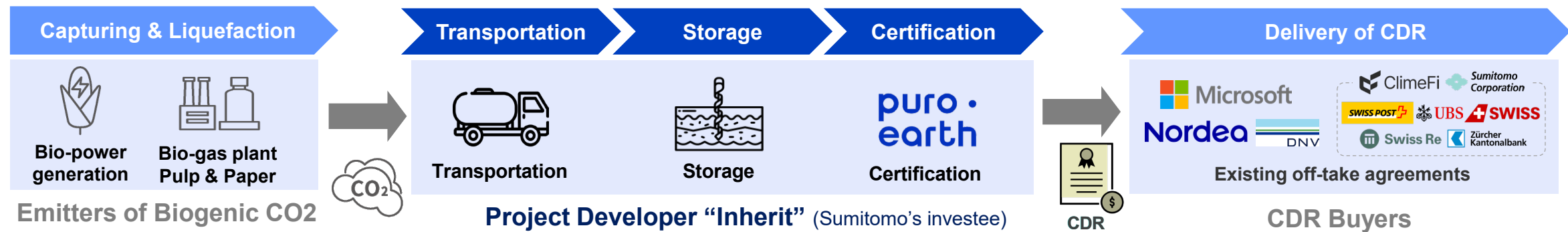
# Investment in Inherit



News Release on January 22, 2024 : [Sumitomo Corporation has invested in Inherit Carbon Solutions, a pioneer in CO2 removal \(CDR\) from biogas | Sumitomo Corporation](#)

- A Norwegian company that captures & stores CO2 derived from biomass and conducts Carbon Dioxide Removal (CDR).
- Inherit plans to create and sell CDR credits by collecting biogenic CO2 starting from tens of thousands of tons since 2026 (Storage sites will be in Nordic countries).

## Business Model



## Company Profile

Name	Inherit Carbon Solutions AS
Establishment	2021
Location	Oslo, Norway (HQ)
Business	BECCS – CDR generation through geologic storage of CO2 from biomethane plants in Nordic
Founders	Michael Carpenter, Co-CEO & Founder Kaja Voss, Co-CEO & Founder
Shareholders	Founders, <b>Sumitomo Corporation</b> , Equinor Ventures, etc.



Biogas Plant (Gasum)

**Microsoft And Inherit Carbon Solutions Strike A Deal For CO2 Removal**

by Sasha Ranevska · December 13, 2023 · 2 minute read

**Inherit**

**Microsoft**

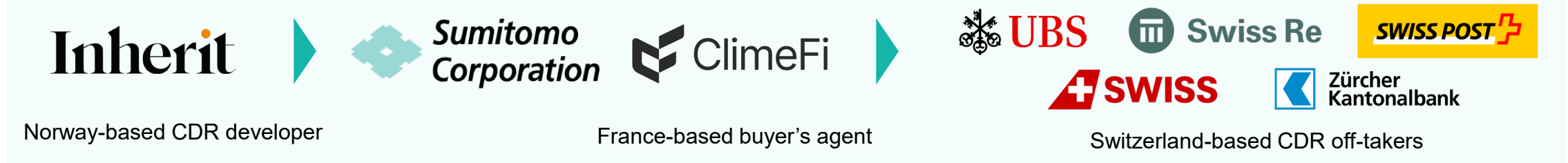
Inherit Carbon Solutions, a leader in long-term carbon capture solutions, has announced a major CO2 removal agreement with tech giant Microsoft. The agreement will see Inherit provide Microsoft with carbon removal services, helping the company offset its harmful emissions and work towards its sustainability goals.

Source: Carbon Herald 13<sup>th</sup> Dec '23

# BECCS CDR from Norway to Switzerland

- Engaged CDR offtake agreement with Swiss buyer through ClimeFi (France-based buyer's agent), as the pilot ITMO transfer between Norway and Switzerland under Article 6 of the Paris Agreement in June 2025.
- Planning to deliver BECCS CDR from Inherit (Norway-based CDR developer).

## ■ CDR trading flow (Ref: [ClimeFi](#) )



## ■ ITMOs outline :

- ITMO stands for Internationally Transferred Mitigation Outcomes.
- Framework for transferable CDR credits of greenhouse gas (GHG) emission reduction under Article 6.2 of the Paris Agreement
- Norway and Switzerland governments have announced the first international Article 6.2 transfers for durable CO2 removals between the countries.



[Signing ceremony in Norway on June 17, 2025](#)

# Strategic Collaboration with Carbon Direct

- Sumitomo Corporation has executed a MOU with Carbon Direct Inc. in December 2024 for co-development and supply of high-quality CDR to support global & Japanese buyers in building their CDR portfolios.

## ■ About Carbon Direct

Company name	<a href="#">Carbon Direct Inc.</a>
Founded in	2020
Institutional Shareholders	Decarbonization Partners (BlackRock & Temasek)
Business	End-to-end carbon management & CDR supply
# of Scientists	<b>Over 70 Scientists</b> (reviewing quality of CDR projects)
Major Clients	Microsoft, JPMorgan, and BlackRock
CDR Portfolio	Working across >140mil tons of CDR demand



Co-publishing the “Criteria for High-Quality CDR” with Microsoft annually (since 2022)

## ■ MOU signing ceremony



## ■ Collaboration scheme








# DACCS Collaboration with Tokyo Gas

News Release on March 14, 2024 : [Joint Feasibility Study on Direct Air Capture with Carbon Storage](#) | [Sumitomo Corporation](#)

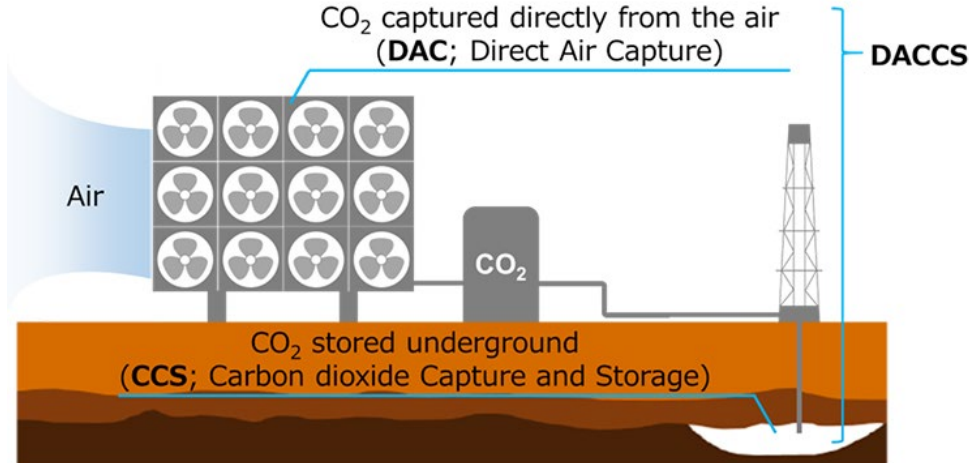
- Sumitomo and Tokyo Gas signed a MOU to jointly conduct a feasibility study on DAC with Carbon Storage.
- The Study will include the assessment of suitable storage sites in North America amongst other regions and evaluation of DAC technologies, from Japan and overseas, with the aim of identifying future joint business opportunities.

 **Sumitomo Corporation** | Enriching lives and the world Japan 日本語 English  Select Region 

About Us ▾ Our Business ▾ News ▾ Sustainability Investor Relations ▾ Enriching+

## Joint Feasibility Study on Direct Air Capture with Carbon Storage

- Advancement towards carbon neutrality through application of negative emission technologies -



The diagram illustrates the DACCS (Direct Air Capture and Carbon Storage) process. On the left, a blue arrow labeled 'Air' points towards a grid of 12 circular fans. A blue line connects these fans to a label 'CO<sub>2</sub> captured directly from the air (DAC; Direct Air Capture)'. This line leads to a grey rectangular tank labeled 'CO<sub>2</sub>'. From the bottom of this tank, a pipe leads down into a brown underground layer. A label 'CO<sub>2</sub> stored underground (CCS; Carbon dioxide Capture and Storage)' points to this layer. On the right, a tall industrial tower is shown, with a blue line connecting it to a label 'DACCS'.

**Enriching** lives and the world