



Cleantech Capital Day

October 10th, 2023



Scaling Carbon Removal with BECCS ➤

Carbon Removal is Required for Net-Zero | BECCS is the Scalable Solution

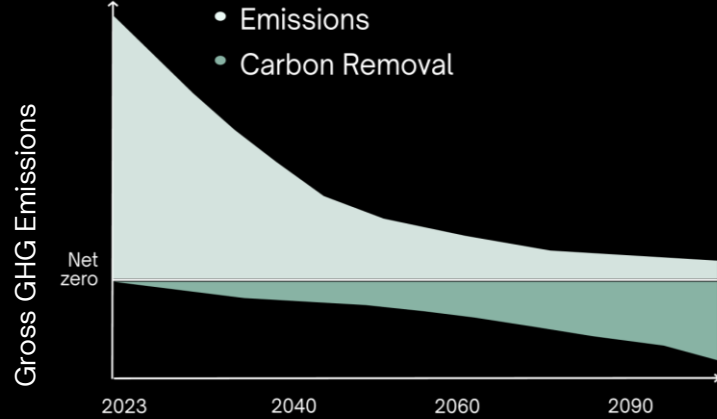
➤ Growing Urgency To Address Climate Change

World Passes Highest Average Global Temperature Recorded

Antarctic sea ice reaches an early winter record low in June 2023

Heat, drought and fire: Europe's year of extremes in 2022 will not be a 'one-off,' new report finds

➤ Carbon Emissions Reduction is Not Enough

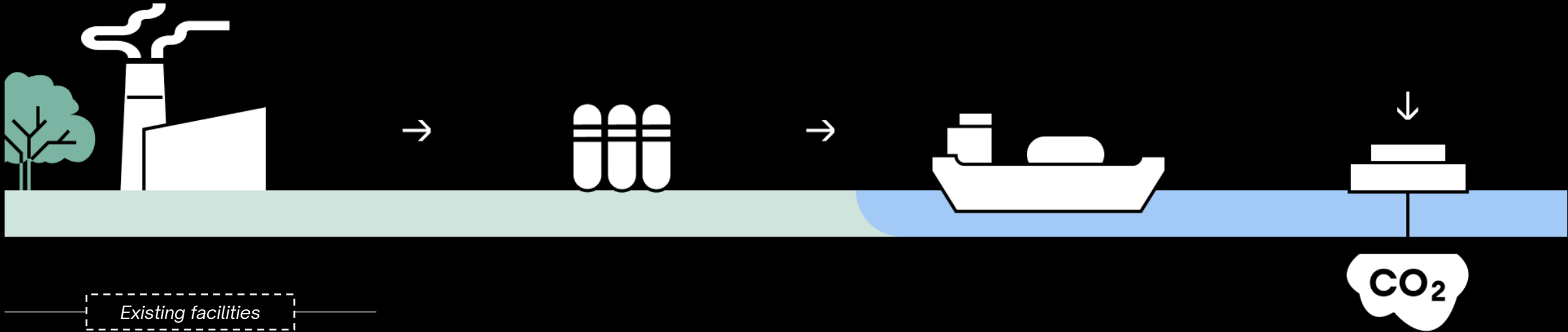


In all climate projections by the IPCC, carbon removal needs to play a massive role; up to 10 Gt/y by 2050, and 20 Gt/y by 2100

➤ BECCS Is The Carbon Removal Solution

	Scale	Permanence
BECCS	✓	✓
DAC	✗	✓
Bio-oil	✗	✓
Biochar	✗	✗

BECCS: Bio-Energy with Carbon Capture and Storage



Existing facilities

Biomass Sourcing

- More than 500M tCO₂/y emitted at existing biomass facilities
- Installing BECCS will not increase biomass or land use demand
- Biorecro works with bioenergy facilities such as pulp, waste-to-energy, CHP, or bioethanol

Carbon Capture

- Biorecro is technology-agnostic as the selection of a capture technology will vary on a facility-by-facility basis based on site layout, price, capture size, etc.
- Most commonly post-combustion technology is used for BECCS installations which involves capturing CO₂ from the flue gas

Transportation

- Carbon dioxide is then brought to the sequestration site.
- Transportation either through pipelines, ships, trucks, and trains.
- Often there is intermediate storage that is used prior to loading the CO₂ onto different transportation modes.

Long-term Storage

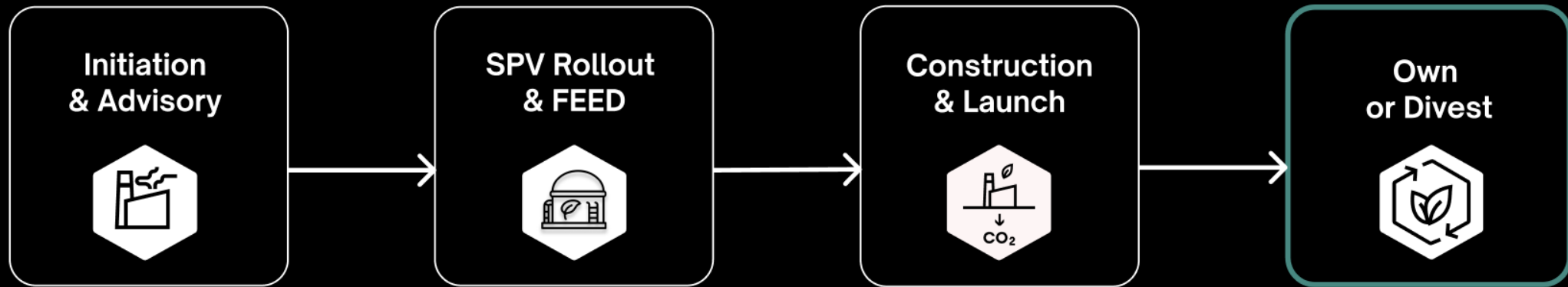
- CO₂ is injected deep underground into geologic formations like saline formations, oil and gas reservoirs, etc.
- These formations trap the carbon dioxide, while a cap rock above acts as a sealant to ensure long-term storage.

Biorecro Traction

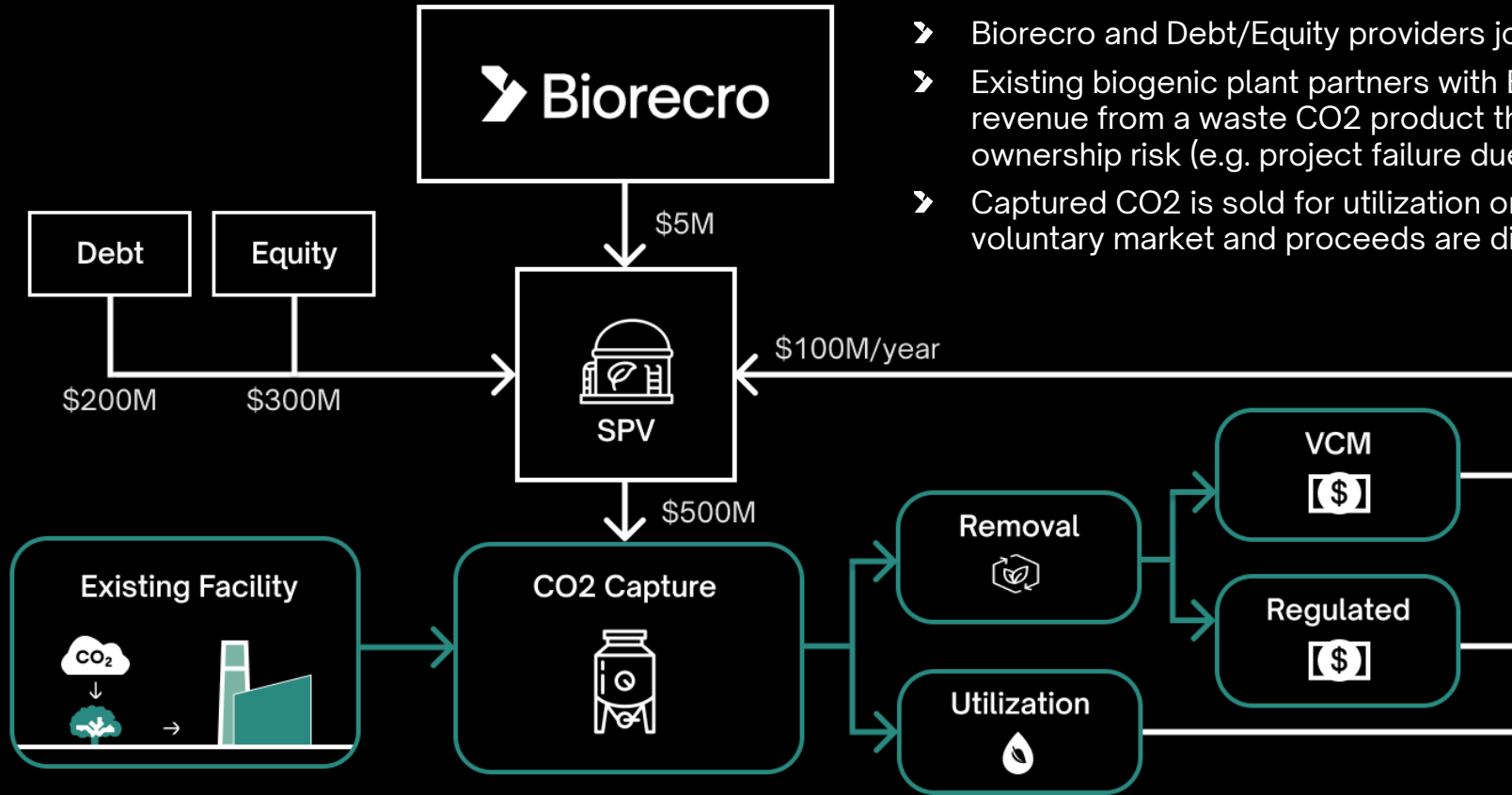
- Biorecro is a global Project Developer of BECCS
- *The Northvolt or Enpal of Carbon Removal*
- Developing 12 facilities, 6.5M+ tCO₂/y
- Discussions with 50+ facilities, 45M+ tCO₂/y
- Multi-step mega-projects, \$500M+ per facility
- Negotiations with \$B+ funds for project financing
- Cashflow positive, bootstrapped with 100% y/y growth
- Evaluating possible Series A TopCo investors



Biorecro Project Developer Methodology



Our BECCS SPV Business Model

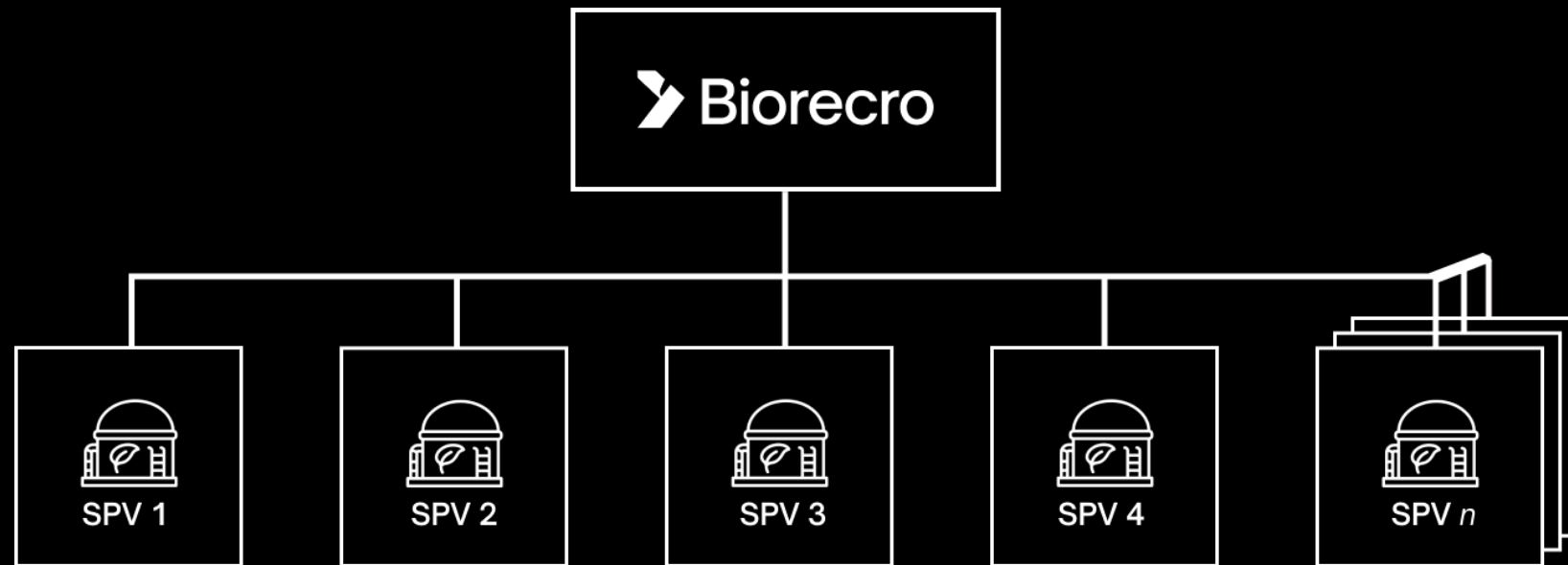


- Biorecro and Debt/Equity providers jointly finance the SPV
- Existing biogenic plant partners with Biorecro to build BECCS facility to get extra revenue from a waste CO2 product that currently has no value and to minimize ownership risk (e.g. project failure due to permitting issues, financing problems etc.)
- Captured CO2 is sold for utilization or as carbon removal credits on regulated and voluntary market and proceeds are distributed to SPV owners

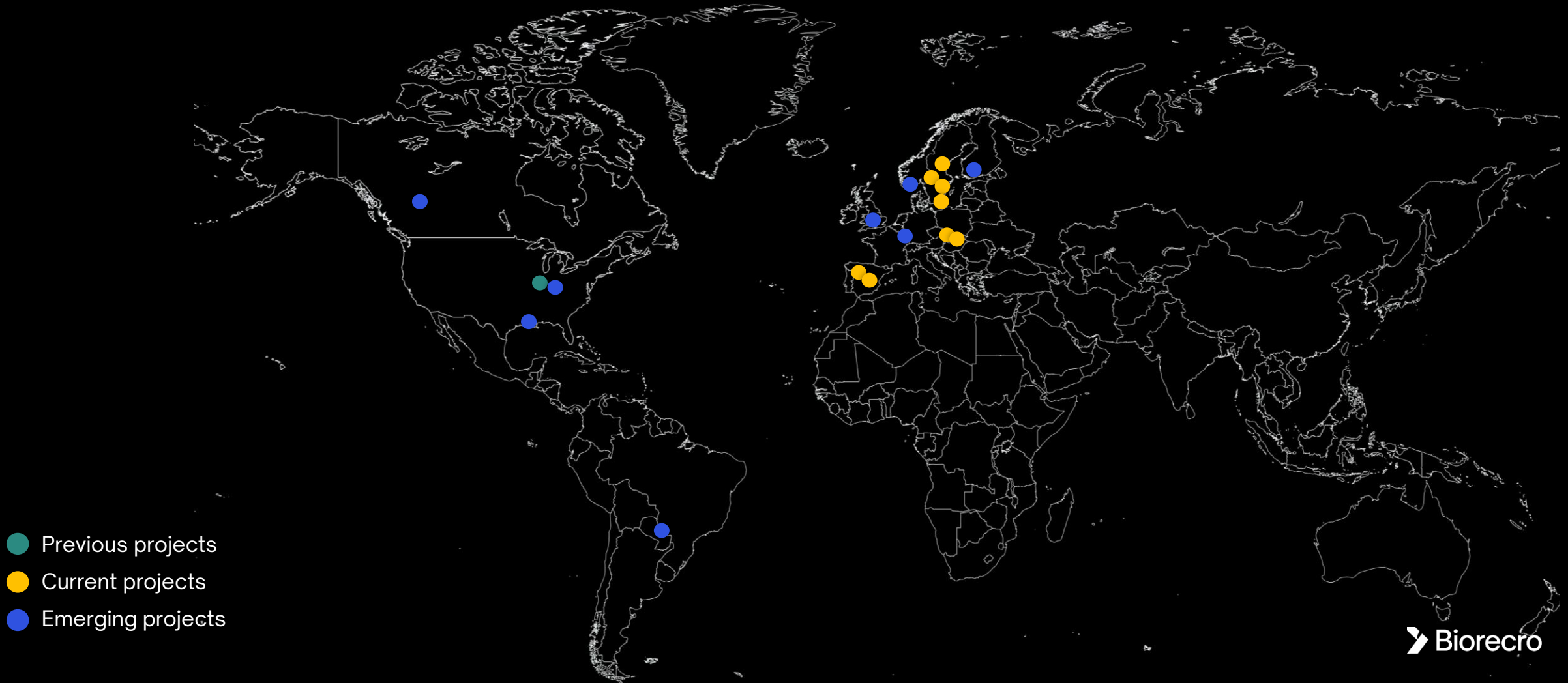
- Diversified revenue streams lower financial risks
- Pre-construction revenue planning aligns with incentives, subsidies, and market conditions

Multi-BECCS Plant Scalability

- Multiple BECCS plants across Europe, North America, and South America.



Partner BECCS Facilities



Huge Opportunity

Voluntary Carbon Market

\$50B market by 2030

“demand for carbon credits could increase by a factor of 15 or more by 2030 and **by a factor of up to 100 by 2050**”

Based on The Taskforce on Scaling Voluntary Carbon Markets (TSVCM), sponsored by the Institute of International Finance (IIF) with knowledge support from McKinsey, 2021

CO2 Utilization Market

\$7B market by 2030

“expected to hit around US\$ 7 Billion by 2030, expanding growth at a CAGR of 13.8% during the forecast period 2022 to 2030”

Based on Precedence Research report 2022

Carbon Removal Market News

August 2023: Occidental Petroleum buys direct air capture (DAC) firm Carbon Engineering for \$1.1 billion

May 2023: The Microsoft-Ørsted BECCS Procurement is the largest purchase of carbon removal to-date, 6x larger than the next largest DAC procurement

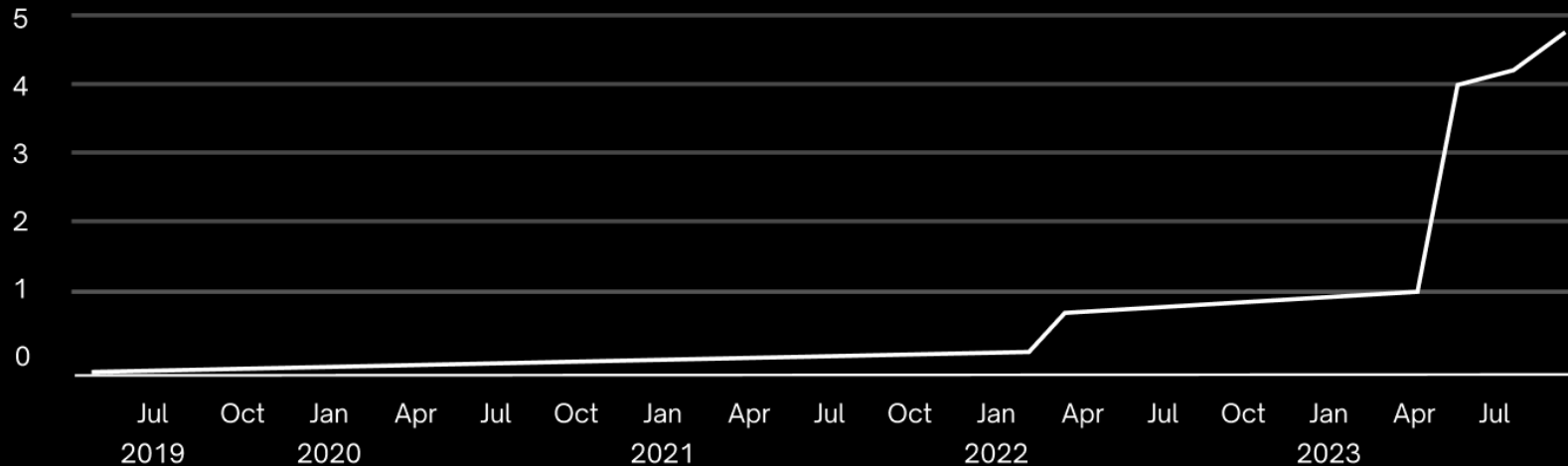
April 2022: Climeworks Raises \$650 Million in Largest Round for Carbon Removal Startup

Note: Regulated market with current value of more than \$100 billion and an annual trading turnover of more than \$250 billion, McKinsey 2021

BECCS driving 600% YoY VCM Growth

CDR sales in the Carbon Market

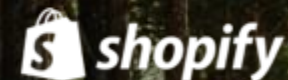
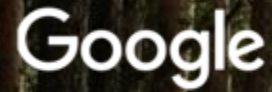
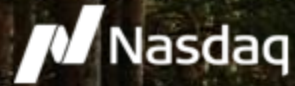
Global purchases of carbon removal (millions tonnes of CO₂)



- Since April 2023, there has been remarkable growth, with the market expanding by nearly 350%.
- Purchases of CO₂ have surged from just over 1 MtCO₂ to nearly 5 MtCO₂.
- Microsoft, JP Morgan and similar Fortune500 offtakers purchasing hundred thousands of tons of BECCS removals.
- Biorecro negotiations including a 400.000-650.000 tCO₂ offtake deal with leading European financial institution.

Inbound Customer Interest

- Cold outreaches to Biorecro to procure carbon removal
- With zero marketing, overwhelming customer interest from Fortune 500 companies



Meet Our Team



Henrik Karlsson
Founder & CEO

Serial entrepreneur with 15 years of leadership in BECCS and Carbon Removal.

Advisory to the UN, IEA/OECD, US DOE projects

Speaker at universities including Stanford, Oxford, Cambridge, Orleans, Edinburgh, UK Royal Academy of Engineering, and Chatham House.



Kiara Manns
Marketing Manager

Content and copywriter for B2B /B2C companies with previous work for SaaS startups and media publications.

Specialized focus on carbon removal and sustainability. Currently leads Biorecro's marketing strategy and content curation of climate and CCS topics.



Adam Grachek
Project Manager

Carbon Removal Specialist delivering \$400K+ in BECCS consulting to multibillion-dollar international clients and smaller Swedish partners; as well as CDR market R&D for Swedish and EU Innovation projects.

Has led and delivered on applications for 8+ offtake agreements, including XPrize and the \$1B+ Frontier AMC fund.



Linnea Strömstedt
Project Manager

Experienced Management Consultant from BCG, working with clients on the topic of Climate and Sustainability, PIPE (Principal Investors and Private Equity) and Industrial Goods.

Currently leads on Biorecro's BECCS advisory and initiation projects with both Swedish and European partners.



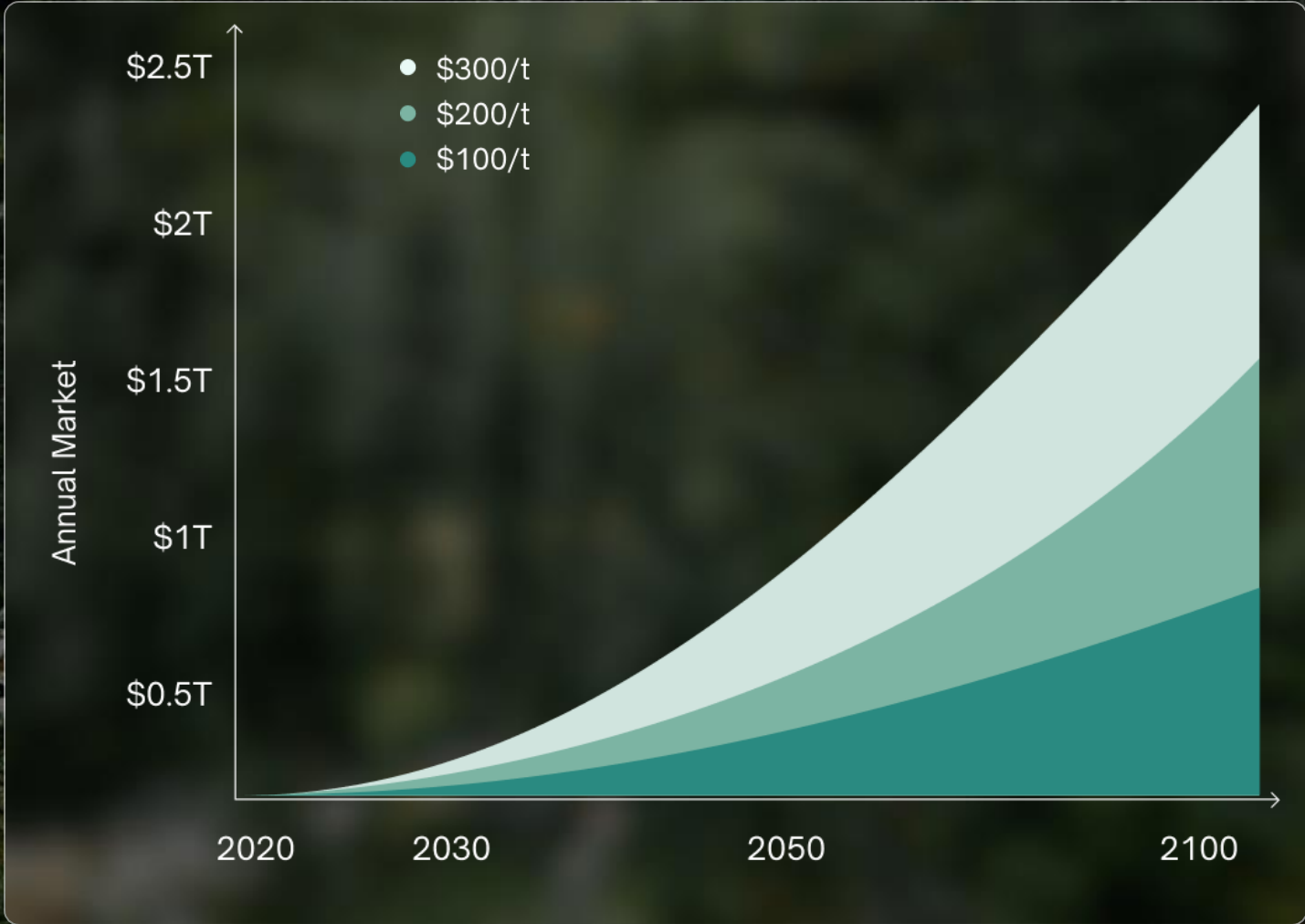
Viktor Garmén
Carbon Removal
Advisory Director

10+ years of experience in global B2B business development and relationship management from the tech industry.

Specialized within Biorecro to further develop and expand the BECCS project pipeline both in Sweden, Europe, and globally.

Trillion Dollar BECCS Market

To meet 2°C IPCC Scenarios



Annual market.
Based off the IPCC AR6 WGIII Full Report BECCS requirements

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