

COMPANY UPDATE

9 May, 2023

VOW green metals



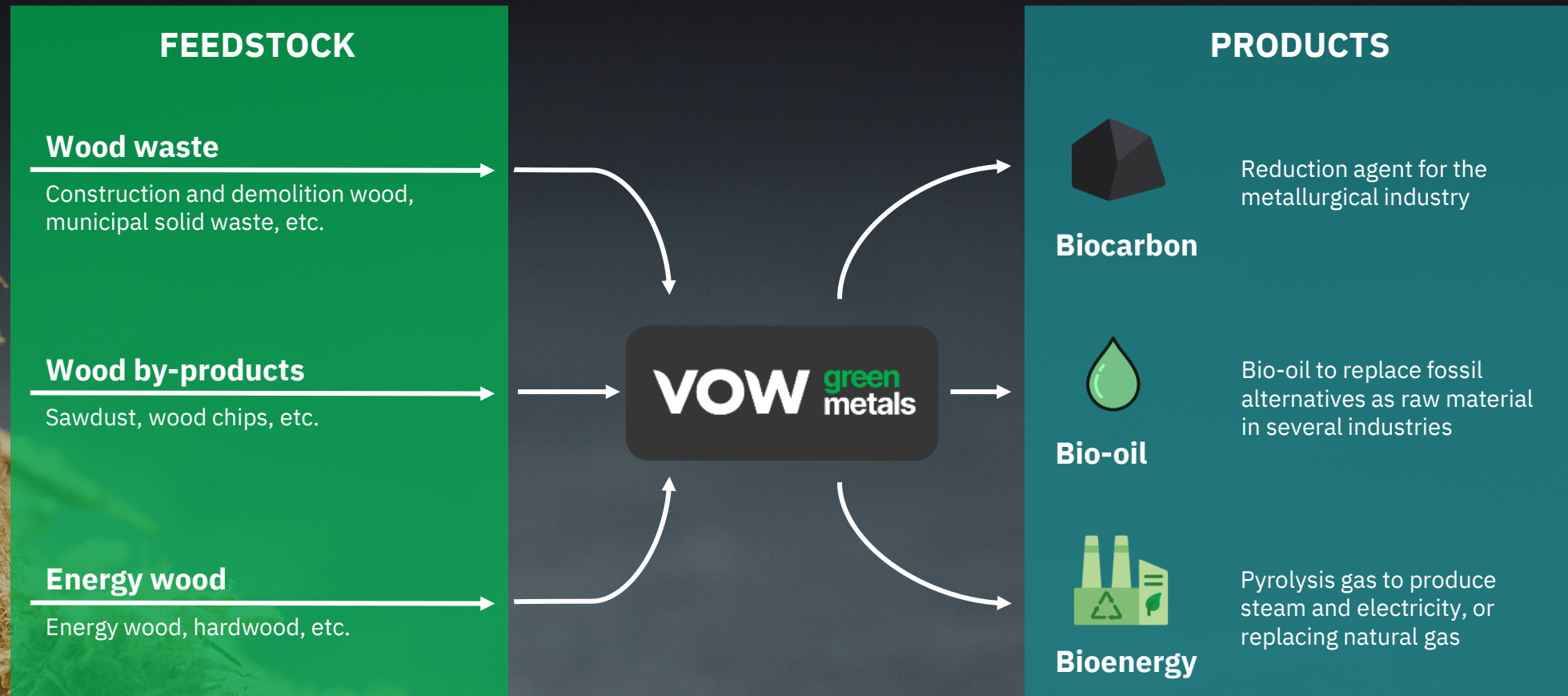
The formula to unlock emissions reduction at industrial scale



The formula to unlock emissions reduction at industrial scale



Valorizing biomass and biomass waste streams



Spearheading the development of a rapidly growing biocarbon industry



Profitable business

Building a profitable business while meaningfully reducing emissions

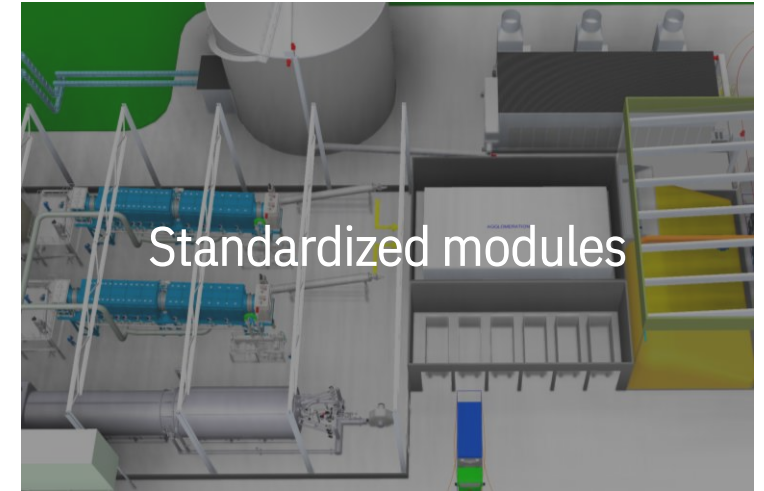
Will be a leading producer of advanced biocarbon and other green products enabling low-cost renewable production at scale for metallurgical industry



First-mover

Market leader in a rapidly growing market

First-mover advantage with growing global pipeline totalling more than 600,000 tons of biocarbon production capacity



Standardized modules

Proven technology and standardized factory modules in place

Unique access to proprietary technology with secured IP rights to standardized plant architecture and biocarbon factory modules and

Main developments

First industrial biocarbon volumes in 2023 by the Early production line

Industrial scale production with 2,500-ton capacity

Installation and construction ongoing

Expected first carbon in Q3 2023

Progress on Follum plant

Partnership agreement with Elkem

Agreement with power grid company, Føie

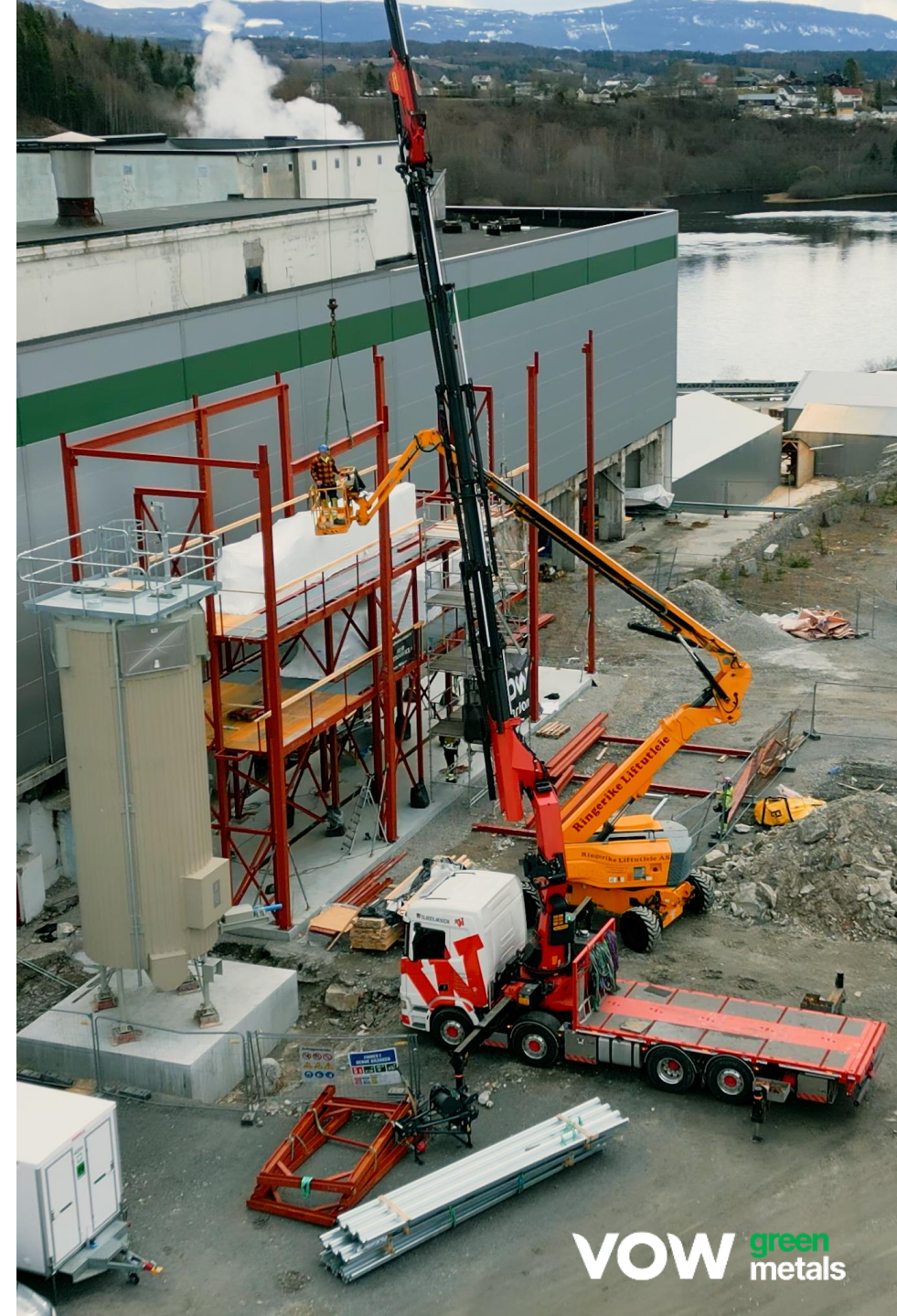
Ongoing negotiations with sub-contractors

Launching new project with Viken Park

Planned biocarbon production capacity of 30,000 tons

Land secured through LOI with industrial park owner

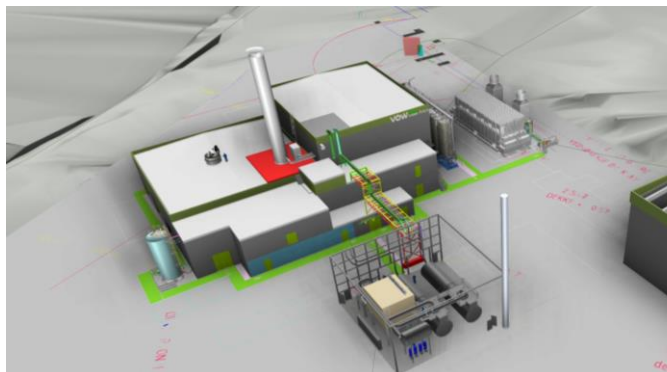
Feasibility ongoing – pre-study planned Q3 2023



First industrial biocarbon production volumes in Q3 this year



Early production line



Follum



Viken Park

Project data

Capacity: 2,500 ton p.a.
Planned operation: Q3 2023
Location: Hønefoss, Norway
Partners: Vow ASA, Treklyngen industripark

Capacity: 20,000 ton p.a. (10,000 first phase)
Planned operation (phase 1): H2 2024
Planned FID (phase 2): H2 2023
Location: Hønefoss, Norway
Partners: Vow ASA, Vardar Varme, Lindum, Treklyngen industripark

Capacity: 30,000 ton p.a.
Planned FID: 2024
Location: Fredrikstad, Norway
Partners: Vow ASA, Viken Park and unnamed companies at Viken Park

Status update

- Planned commissioning and first biocarbon production starting in Q3 2023
- Providing significant synergies to the Follum project, improving ramp-up, operations and more
- Installation started; Biogreen pyrolysis reactor installed mid-April, additional equipment in following weeks
- Recruitment of operators started

- Phase 1 progressing as planned with commissioning and first biocarbon mid-2024
- Most process equipment for phase 1 already delivered at site
- Negotiations for civil works and process equipment installation ongoing
- Joint infrastructure project progressing well
- Agreement with Føie (grid-operator) signed

- Feasibility study ongoing
- Preparing for pre-study start Q3 2023
- Evaluating synergies with other companies to locate at Viken Park
- Strategically located centrally in Østfold with access to highways, port and terminal

Growing global portfolio of large-scale biocarbon production plants

Norway

Pipeline: **200,000 ton**

- Follum
- Viken park
- Sawmills
- Industrial parks

North America

Pipeline: **40,000 ton**

- Bioenergy

Nordics

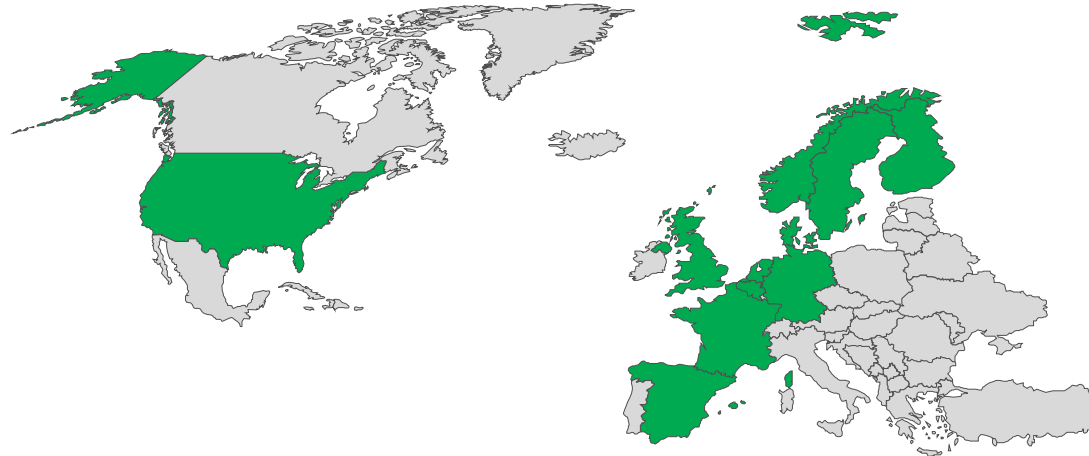
Pipeline: **150,000 ton**

- Metals
- District heating
- Sawmills

Europe

Pipeline: **230,000 ton**

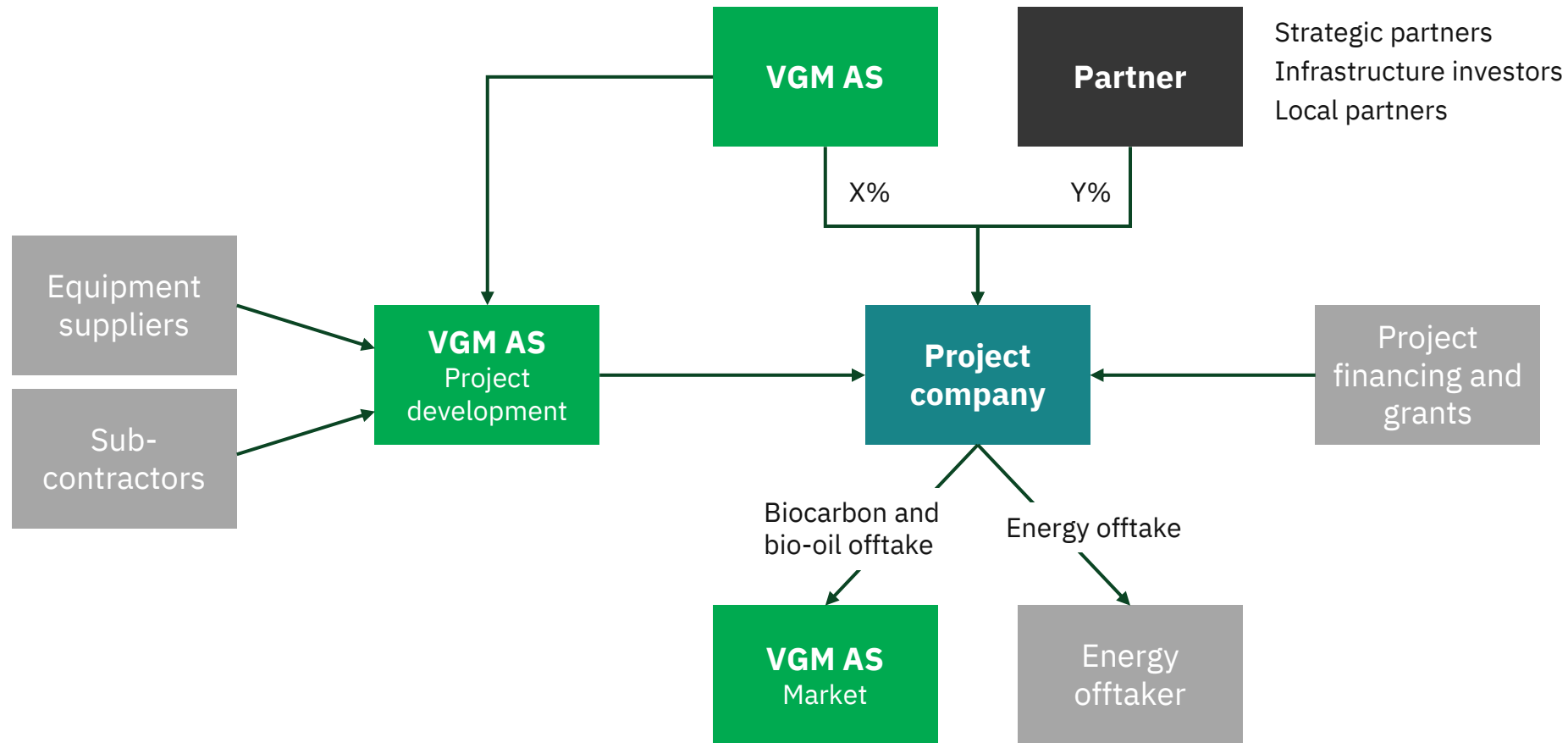
- Pulp and paper
- Building materials
- Metals
- Sawmills
- Chemicals



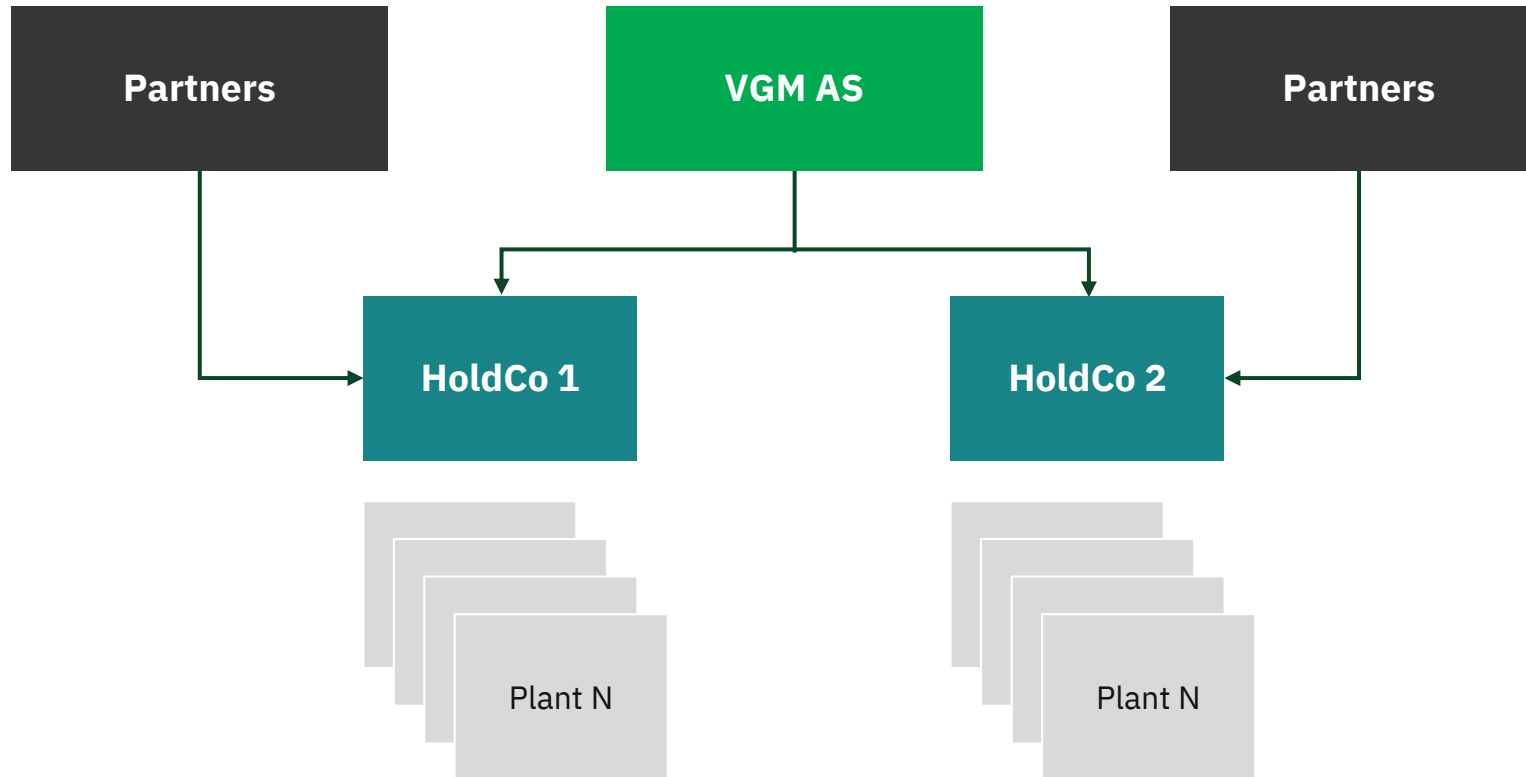
Total pipeline

>600,000 ton

Our planned structure to accelerate expansion



Vow Green Metals add value to biocarbon investment portfolios



Vow Green Metals value proposition

- ✓ Originating and developing attractive projects
- ✓ Advancing operations according to best practice
- ✓ Progressing standardization efforts utilizing unique access to technology and IP rights for standardized factory modules and plant architecture
- ✓ Developing new products and markets
- ✓ Sourcing feedstock and securing offtake agreements

The value of reducing emissions is massive – enabling profitable biocarbon at competitive price levels

1
ton biocarbon



Replace

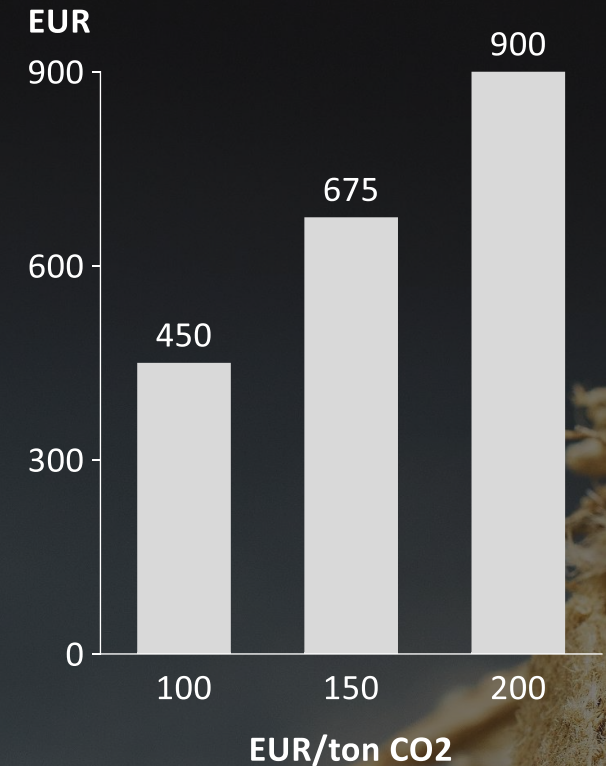
1.3
ton fossil coal



Avoiding
~5
ton fossil CO₂
emissions



Value of reduced CO₂ emissions



Global trends backing the need for change



Increasing cost of emissions

- EU ETS increased significantly through 2022, breaking 100 EUR/ton in early 2023
- IEA project an average price of 250 USD/ton in OECD by 2050, with potentially even higher prices in the EU
- Carbon Border Adjustment Mechanism imposes a carbon price on imports preventing leakage from countries outside EU with lower carbon pricing



Policies and push for more circularity

- Massive new green subsidies and regulatory support from the US' Inflation Reduction Act and EU's Net-Zero Industry Act
- Renewable Energy Directive III (RED III) promoting a gradual shift away from conventional biofuels
- The legislation is strengthening sustainability criteria for biomass and promotes recovery of wood waste for recycling, e.g. biocarbon production



Metal producers race to cut emissions

- Most companies in the metallurgical industry have committed to comprehensive decarbonizing programs in response to new regulation and expectations from investors and customers
- We are in dialogue with several metallurgical companies that are actively seeking to source large volumes of biocarbon

FORGING A **NEW ERA** FOR THE METALLURGICAL INDUSTRY



VOW green metals