



Ongoing efforts in “commoditizing” bio-CO₂: an example from the e-SAF dimension

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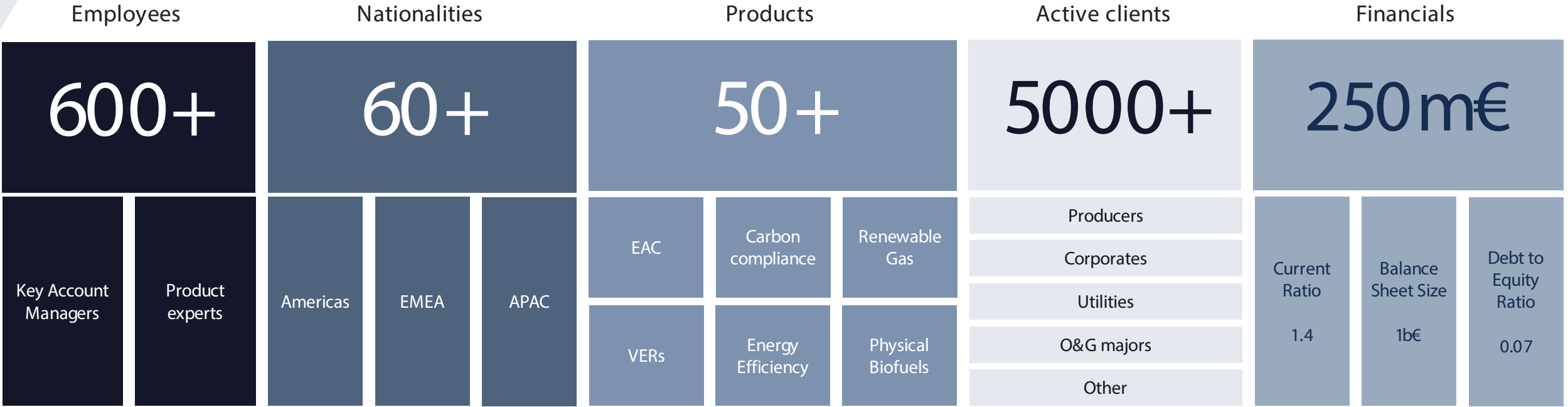


Agenda

1. STX introduction
2. STX presence in the bio-CO₂ value chain



1.1 Founded in 2005, STX Group a leading environmental commodities trader with global presence



1.2 STX trades environmental commodities in each of these areas



1 Renewable energy & fuels

Biofuels/Feedstocks

Fuels that are produced over a short time span from biomass (plants or waste), rather than by the very slow natural processes involved in the formation of fossil fuels, such as oil

Renewable Gases (Biomethane, Hydrogen, Biogenic CO₂)

Gas produced from raw materials such as agricultural waste, manure, municipal waste, plant material, sewage, green waste and food waste; and other renewable gases

Renewable Energy Certificates (GOO/IREC/REC)

Renewable Energy Certificates (RECs) are a market-based instrument that certifies the bearer owns one megawatt-hour (MWh) of electricity generated from a renewable energy resource

Blending/EV tickets (e.g. RTFC, THG Quoten, HBE, RIN)

Tradeable GHG reduction certificates that road fuel blenders receive for each tonne of CO₂ equivalent (CO₂e) saved



2 Energy Efficiency

Energy Efficiency Certificates (e.g. French white certificates)

Documents certifying that a certain reduction of energy consumption has been attained. EECs are often tradable and combined with an obligation to achieve a certain target of energy savings



3 Offsetting

Carbon offsets (Emission reductions) & Carbon removals

Carbon offsets or removals exchanged in the voluntary or over-the-counter market for carbon credits. Usually certified through a voluntary certification process

Carbon insets

Emerging product class where certificates represent actual CO₂ reduction in the supply chain (Scope 3) through a targeted intervention, rather than an offset



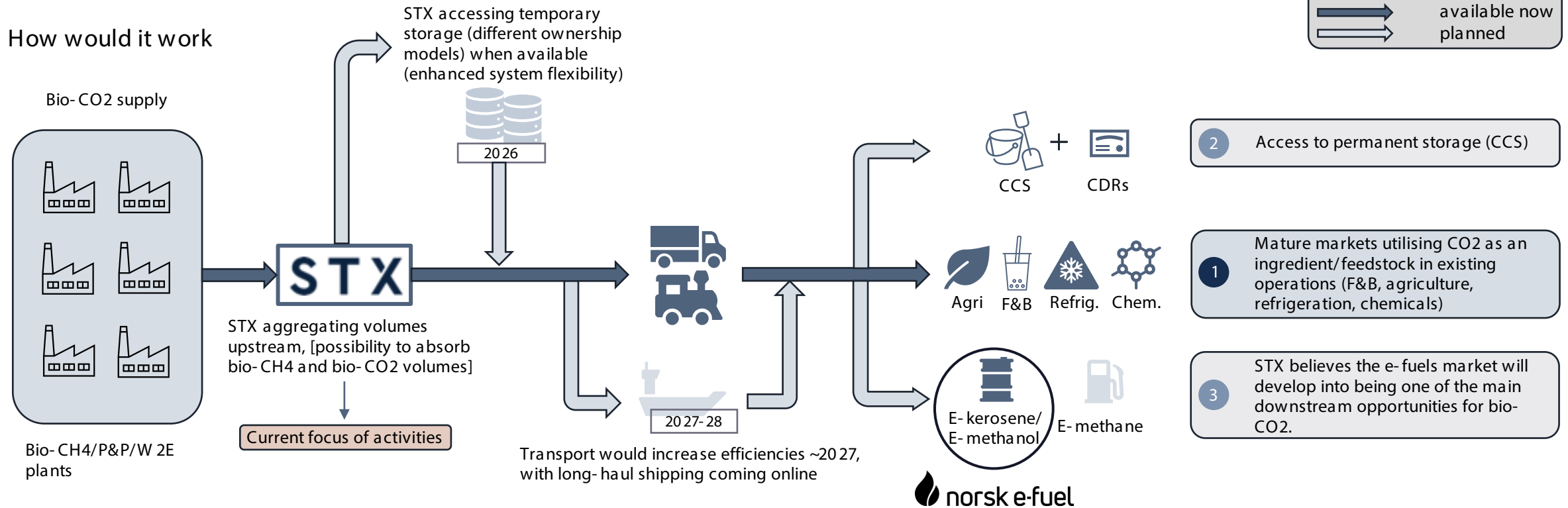
4 Emission trading schemes

Emission allowances (EUA, ..)

Climate credits (or carbon credits) used in the European Union Emissions Trading Scheme (EU ETS)

2.1 STX intended business model in the biogenic CO2 sphere

How would it work



Upstream

STX exposure to biomethane (and W 2E) plants across the EU guarantees access to significant volumes upstream

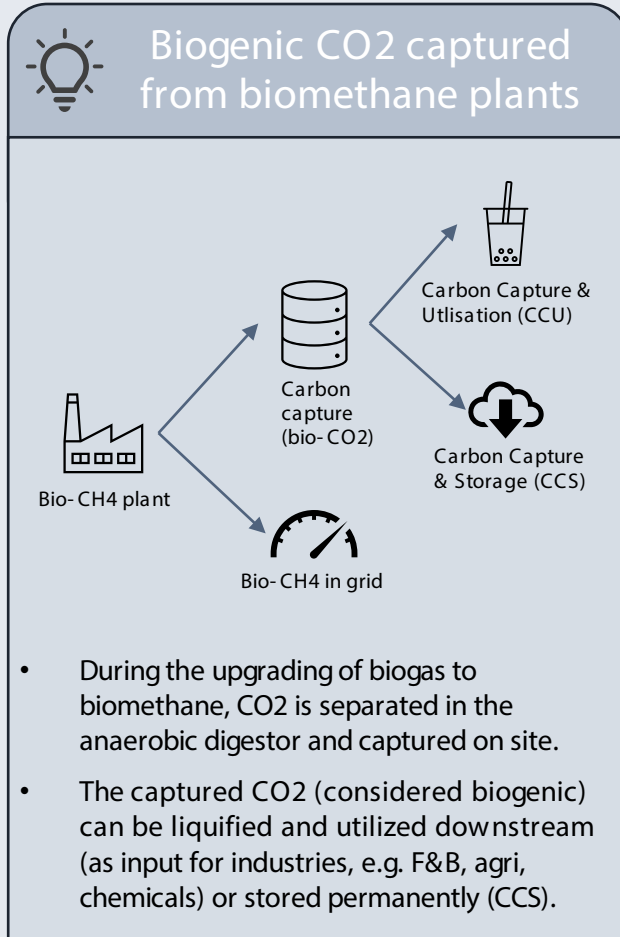
Midstream

STX working with third-parties to ensure delivery of molecule to end-user, with flexibility to access more efficient means of transport when available

Downstream

STX building optionality downstream, with a view to monetize the aggregated bio-CO2 volumes in the most promising markets

2.2 An example of our efforts upstream: STX entered into a marketing agreement with Perpetual Next, biomethane plants developer (NL + UK)



 Perpetual Next investing in CCU in the NL

- Perpetual Next, a biomethane developer, runs a bio- CH4 plant using food waste (biomass) as a feedstock.
- Perpetual Next is considering an investment in CO2 capture to enhance the sustainability of its biomethane.
- Such a capturing system would also liquify captured CO2 to have it transported to end users in the area.



Perpetual Next plant in Moerdijk, Netherlands

 STX bringing PN's bio- CO2 volumes to market

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STX GROUP AND PERPETUAL NEXT CONVERSIONS PARTNER TO DEVELOP AND MARKET BIOGENIC CO₂ TO SUPPORT ENERGY TRANSITION

- STX and Perpetual Next entered in February 2024 into a marketing agreement whereby STX holds an exclusivity on the bio- CO2 volumes produced at Moerdijk.
- Perpetual Next requires STX to find viable off takers to ensure the economics of the project allows for a successful FiD.
- Under the existing structure, STX disposes of up to 2,500 tons of biogenic CO2 on a yearly basis to be placed in the Benelux region.

2.3 Our efforts downstream: our collaboration with Norsk e-fuels



STX Group and Norsk e-Fuel partner to boost biogenic CO₂ delivery in the Nordics for sustainable e-fuel production

AMSTERDAM (April 15, 2024) — **STX Group**, a global leader in environmental commodities trading and climate solutions, and **Norsk e-Fuel**, a pioneer in the European e-fuel market, today announce their partnership to promote biogenic CO₂ deliveries to future Norsk e-Fuel production

STX full press release [here](#).

Thank you!

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