

# Accelerating the worlds transition to a carbon negative future

**CO2 CAPSOL – FIRST HALF YEAR RESULTS 2022** 

16 September 2022





Jan Kielland CEO Ingar Bergh CFO

## Introduction

## **CO2 Capsol at a glance**



#### Ready-to-scale carbon capture technology

- CO2 Capsol has developed a safe and cost-effective carbon capture technology
- We license out our technology, either directly to emitters or through global distribution partners
- The technology is based on a potassium carbonate solvent and applicable to all CO2 intensive industries worldwide
- Key target segments include cement, biomass, energy-fromwaste, power generation and large industrial facilities
- Three successful pilot projects with 3,300+ operational hours,
   >99% uptime and 90-95% capture efficiency



#### ...gaining global commercial traction



Note: Total CO2 emitted per year from active leads is related to specific projects considering CO2 Capsol's solution with further upside from other projects within the same companies.

## 46% annual growth in CO2 capture required by 2030





#### ~800 million tons of additional CO2 capture capacity required 2022-2030, and a further 4,760 million tons 2030-2050

Source: IEA Energy Technology Perspectives 2020. Net zero estimated to require 840 million tons CO2 capture capacity per year in 2030 and 5,600 million tons by 2050. Note: CO2 Capsol's addressable market, illustrated above, excludes Direct Air Capture, estimated to 11 million tons in 2030 and 117 million tons in 2050.

#### Patented heat recuperation process with potassium carbonate

- CO2 Capsol's technologies is maximizing efficiency of the absorption/desorption process
- Near zero emission to air and no amine degradation products

#### High-purity CO2

- The captured carbon dioxide can be liquified and further processed
- Suitable for use in chemicals processes or storage

#### Proven through successful pilots

- Three pilot projects completed with more than 3,300 operating hours and >99% uptime<sup>1</sup>
- 90-95% CO2 capture efficiency



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## Highlights

## **First CapsolGo™ campaign**

- January 2022 A final investment decision for the first mobile carbon capture demonstration unit, CapsolGo™
- March 2022 First signed contract for a demonstration campaign at Öresundskraft AB at their EfW (Energy-from-Waste) plant in Helsingborg. Operational start in September 2022.
- The Öresundskraft project has been funded with 25% by the Swedish Energy Agency.



Image: https://www.oresundskraft.se/om-oss/filbornaverket/



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## First CapsolGo<sup>™</sup> campaign

- We care
- We can
- We capture







## Hitachi Zosen INOVA

- **February 2022** Announced collaboration (MoU) with Hitachi Zosen Inova (HZI) – a Swiss Japanese greentech company.
- Collaboration to implement CO2 Capsol's Hot Potassium Carbonate (HPC) carbon capture technology on Energyfrom-Waste (EfW) plants.
- Develop joint offering of solutions to decarbonize EfW plants.

## Second CapsolGo<sup>™</sup> unit

- June 2022 A second CapsolGo™ unit was ordered due to strong interest for the CapsolGo™ 4-month demonstration campaign.
- Will allow us to offer additional demonstration capacities in the fourth quarter of 2022.
- Valuable input from the Öresundkraft campaign.



## CO2 CAPSOL

## July 2022 - CO2 Capsol signs Patent License Agreement with Stockholm Exergi

- Stockholm Exergi provides power, district heating and cooling
- Owned 50% by the City of Stockholm and 50% by long-term investors led by APG
- Energy from biomass is considered carbon neutral
- Capturing and storing the carbon makes Stockholm Exergi Europe's first large-scale negative emissions plant
- The project is supported with EUR 180 million from the EU Innovation Fund



#### "This project is proof of our scalable technology platform and could accelerate the CCS value chain development across Northern Europe." CO2 Capsol CEO, Jan Kielland

Note: As a first mover to install CO2 Capsol's proprietary technology, Stockholm Exergi received more favorable terms than CO2 Capsol expects to achieve on following projects. The patent license agreement will generate satisfactory returns with income for the company no later than in 2024, as the full payments will be made when Stockholm Exergi makes the Final Investment Decision (FID) for the carbon capture facility.



#### CO2 Capsol's technology selected as the preferred solution due to:

- Highly competitive economics
- Ease of Capsol EoP installation
- Proven technology and safety of HPC compared to amines
- Opportunity to recover carbon capture process heat for district heating
- Full-scale deployment 800,000 ton CO2 per year
- Operational End of 2025



#### Potential of being a catalyst to accelerate the development of the whole carbon capture and storage value chain across Northern Europe

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#### **EPC provider for licensing model**



International EPC provider for Energy and Infrastructure Projects with broad inhouse capabilities to deploy Capsol EoP across regions and application areas.

#### **Testing, validation & expertise**



Captimise AB is a specialist within CCS with deep knowledge and over 15-year experience of CCS projects in USA and Europe.

#### **Development & supply cooperation**



The focus of the cooperation lies in the development and supply capability of small-scale modular carbon capture solutions primarily in connection with the Energy-from-Waste power plant deliveries.

#### **Advanced discussions**



...ongoing with several global industrial leaders to implement CO2 Capsol's technology.





#### Jan Kielland, Chief Executive Officer

>40 years' experience with management and board positions in the energy sector internationally. MSc in Petroleum Engineering from NTNU.

Shares held: 5,172,677 Options: 850,000



#### Ingar Bergh, Chief Financial Officer

>15 years' experience as advisor and executive in the energy and shipping sectors. Engineering degree, MSc in Supply Chain Management, MBA Finance, Authorized Financial Analyst (CEFA).

Options: 750,000



#### Johan Jungholm, Chief Commercial Officer

10 years' in Business Development, Complex Sales and Marketing and 15 years in energy sector. BA in Geology and Environmental Science, University of Pennsylvania. Options: 230,000



#### Cato Christiansen, Chief Technology Officer

Former Shell, SPT Group and the Norwegian Ministry of Petroleum and Energy (Carbon Capture and Storage). PhD in Mechanical Engineering from NTNU.

Options: 500,000



#### Tone Bekkestad, Chief Marketing Officer

>20 years' experience in communications & media. Moderator and lecturer on the topic of solutions to climate change. MSc in Meteorology.

Shares held: 717,118 Options. 590,000



#### Philipp Staggat, Head of CapsolGo

>10 years at Siemens, including lead commissioning engineer and project manager, before joining CO2 Capsol.
BSc Engineering Berlin University of Applied Sciences and MBA London Business School

Options: 190,000

Shares and options pr. 31.12.2021



46% annual growth in CO2 capture capacity required by 2030	<ul> <li>Path to net zero calls for EUR ~13bn of carbon capture technology capex to be sanctioned next eight years</li> </ul>		
	Cement, power generation and chemicals are key drivers		
A competitive solution and an attractive business model	<ul> <li>Attractive solution: Proven, safe and ~40% lower capture cost<sup>1</sup></li> <li>Capital light business model: Limited risk and expected superior returns</li> </ul>		
Building a leading global carbon capture tech provider	<ul> <li>Targeting 5% market share, EUR 7-12/ton revenue<sup>2</sup> and 40-60% margin<sup>3</sup></li> <li>Based on commercial terms currently being negotiated, CO2 Capsol's current business plan could deliver pre-tax profit of NOK 450m+ in 2030</li> </ul>		
Investing to establish leading position early	<ul> <li>Investing in test units, team and distribution to capture market share early</li> <li>Test units deployed for proof of application</li> </ul>		
Experienced management team dedicated to create value	<ul> <li>Management team with 10-40 years energy and industry experience</li> <li>Dedicated professionals highly incentivized to create shareholder value</li> </ul>		

Source: IEA estimates, company estimates – Final Investment Decision (FID) 2 years before operations on average. Illustrative PTP (pre-tax profit) potential in 2030 based on midpoint of targets and payment over 3 years from FID. 1) According to Swedish Energy Agency study comparing CO2 Capsol's HPC solution with competing amine solutions. 2) Revenue per installed capacity. 3) Pre-tax profit margin.

## Finance



#### Operating cost breakdown

Figures in million NOK



Building business and pipeline – Limited revenue

Operating cost in line with expectations – organisational ramp up

Cost mainly related to personnel expenses and technical / commercial services

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Net loss of 17 million NOK



Main assets breakdown

Figures in million NOK



Cash, IP and Plant equipment

No interest-bearing debt

Good cash position of 60 million NOK (9.3x total liabilities)

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Total book equity of 75 million NOK



Aggregate net cash flow for H1 '22

Figures in million NOK

Modest burn rate – about 24 million NOK

Ramp-up of organization and activities ongoing

Burn-rate to increase. However sufficiently funded to deliver on core business model

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Flexible spend with limited firm capital commitments





## CO2 Capsol will license its technology globally in close collaboration with global technology partners

Best of all worlds business model in terms of scalability, profitable growth, low capital intensity, and solid risk management





#### Highly scalable

- No inherent boundaries to number of projects and project geography

   can work with new partners as required
- Limited capital and resource requirements to enter new projects
- Can work with partners that are specialists in different industries

#### **High margins**

- Fixed revenue stream from a percent of project costs and recurring revenue component per ton CO2 captured
- Low fixed cost base will be conservatively scaled up to keep up with operations
- Limited marginal costs associated with additional projects

#### Low risk

- Contractors or project owners take majority of cost and delivery risk
- CO2 Capsol gets paid regardless independent of project profitability but can participate in performance-based earnings
- Loss on one project will be limited to licensing fee, so no structural risk to company.







#### Demonstration unit: CapsolGo<sup>™</sup>

#### 700 tons CO2/year

Verify technology with client's flue gas to reduce uncertainties and risks before full-scale project

Capex of EUR 1.5-3 million

Mobile – can be used for several clients

Will provide annual revenue, foothold in project and increase technology track record





#### Small-scale

#### +/- 100,000 tons CO2/year

Potential for module-based plants

Flexible delivery model

Revenue model range from licensing to as-aservice (with partners)

#### Large-scale

#### 250,000+ tons CO2/year

Licensing of technology – delivery together with partners

Revenue model (EUR per ton captured)

% of capex as license fee in instalments

Paid engineering





1: For reference, a 1,000,000 tonnes per year facility has capex requirements in the range of EUR 100-200 million, depending on e.g. location, facility type, CO2 concentration © 2022 CO2 CAPSOL – FIRST HALF YEAR RESULTS PRESENTATION

#### Winning initial projects

#### 2022-2023

- 2 mobile demonstration units in operation
- Secured 4 small projects or more
- Secured 2 or more large-scale projects
- Secured key EPC (Engineering, procurement, and construction) and global commercial partners

Build organisation, key partnerships and proof of application

#### Capturing market share

#### 2024-2025

- Additional demonstration units
- Secured 8 small projects or more
- Secured 4 or more large-scale projects
- Consider implementing new business scopes with complementary revenue



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#### 2026-2030

- Reach 5% market share
- Consider extending scope per project and explore delivery of tailor-made key equipment
- Consider full value chain service together with partners
- Consider financing entity with partners

Grow order book and revenue

Grow margin and explore new business models



## Supporting slides



### **Income statement**

Amounts in Norwegian Kroner	H1 2022	H1 2021	2021
Operating income and expenses			
Revenue	_	37.950	37.950
Other operating income	21.666	16.458	29.624
Total operating income	21,666	54,408	67,574
Personnel expenses	11,282,549	2,261,504	13,186,306
Depreciation of intangible assets	215,897	215,897	431,794
Other operating expenses	<mark>5,</mark> 552,588	2,860,296	11,632,253
Total operating expenses	17,051,034	5,337,697	25,250,353
Operating loss	- 17,029,368	- 5,283,289	- 25,182,780
Financial income and expenses			
Other interest income	-	1	1
Other financial income	138,728	-	4,126
Other interest expenses	-	1,486	1,486
Other financial expenses	98,150	10,375	73,639
Net financial items	40,578	- 11,860	- 70,998
Loss before tax	- 16,988,790	- 5,295,149	- 25,253,778
Tax expense	-	-	-
Net loss	- 16,988,790	- 5,295,149	- 25,253,778
Brought forward:			
Loss brought forward	16,988,790	5,295,149	25,253,778
Net loss brought forward	- 16,988,790	- 5,295,149	- 25,253,778





### **Balance sheet**

Amounts in Norwegian kroner	30.06.2022	30.06.2021	31.12.2021
ASSETS			
Fixed assets			
Datanta licances trademarks and similar rights	6 602 800	7 1 2 4 6 0 2	6 009 706
Total intangible assets	6,692,809	7,124,603	6,908,706
Diant and any impact	12 212 220		2004720
Total plant and equipment	12,213,330	-	2,964,720 <b>2,964,720</b>
Financial fixed assets	1	1	1
Loan to group companies	52,543	44,143	44,143
Total financial fixed assets	52,544	44,144	44,144
Total fixed assets	18,958,682	7,168,747	9,917,569
Current assets			
Debtors			
Accounts receivables	-	-	-
Total receivables	2,515,215	285,385 285,385	2,034,746
Cash and bank deposits	60,416,369	32,655,421	84,944,575
Total current assets	62,931,584	32,940,806	86,979,322
Total assets	81,890,266	40,109,553	96,896,891

Amounts in Norwegian kroner	30.06.2022	30.06.2021	31.12.2021
EQUITY AND LIABILITIES			
Equity			
Paid-up equity			
Share capital	50,582,776	35,651,739	50,582,776
Share premium reserve	75,064,800	25,838,177	75,064,800
Other paid in capital	9,809,376	-	4,425,610
Total paid-up equity	135,456,952	61,489,916	130,073,186
Retained earnings			
Uncovered loss	- 60,056,165	- 23,108,748	- 43,067,375
Total retained earnings	- 60,056,165	- 23,108,748	- 43,067,375
Total equity	75,400,787	38,381,168	87,005,811
Liabilities			
Current debt			
Trade creditors	3,837,783	378,839	5,323,105
Public duties payable	292,792	345,152	729,277
Liabilities to group companies	99,900	99,900	99,900
Other current debt	2,259,004	904,494	3,738,798
Total current debt	6,489,479	1,728,385	9,891,080
Total liabilities	6,489,479	1,728,385	9,891,080
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Total equity and liabilities	81,890,266	40,109,553	96,896,891



### **Cash flow statement**

Amounts in Norwegian Kroner	H1 2022	H1 2021	2021
CASH FLOWS FROM OPERATING ACTIVITIES			
Loss before tax	- 16,988,790	- 5,295,150	-25,253,778
Ordinary depreciation Change in accounts receivable Change in accounts payable	215,897 - - 1,485,322	215,897 49,050 - 3,592,563	431,794 49,050 1,351,703
Share based compensation scheme without cash impact Change in other accrual items	5,383,766 - 2,405,147	- 2,484,596	4 ,425,610 3,953,663
CASH FLOWS FROM INVESTMENT ACTIVITIES	- 13,279,390	- 0, 136, 17 1	- 13,04 1,938
Investments in plant and equipment Net cash from investment activities	- 9,248,610 <b>- 9,248,610</b>	-	-2,964,720 <b>-2,964,720</b>
CASH FLOWS FROM FINANCINGOPERATING ACTIVITIES	-	-	
Net proceeds from share issue	-	38,260,879	102,418,540
Net cash from financing activities	-	38,260,879	102,418,540
Net change in cash and cash equivalents	- 24,528,206	32,122,709	84,411,862
Cash and cash equivalents at the start of the period Cash and cash equivalents at the end of the period	84,944,575	532,713 32 655 422	532,713 84 944 575

