## 

On a mission to eliminate anaesthesia and respiratory related complications.

Philip Siberg, CEO Aug 2023

## This is Senzime

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A global medical technology **company driving innovation and a digital technology shift** within monitoring - addressing markets exceeding **50 billion SEK**.

Superior solutions with at eliminating life-threating anesthesia- andlegacy from Mayo Clinic and Massachusetts General Hospital aiming respiratory-related complications

Business model based on advanced algorithm powered monitoring solutions with **recurring sales of proprietary disposable sensors**.



**Commercial infrastructure in place with subsidiaries in US and Germany** coupled with license agreements and commercial partnerships in 25+ countries

Supported by broad clinical guidelines, run by a worldclass team, and backed by committed investors with NASDAQ Stockholm Main Market listing.



## Strong growth and expansion phase with focus on US, Europe and Japan



## Standardized use of paralytic drugs in anaesthesia create a significant medical need for accurate patient monitoring

The triad of general anaesthesia



22 million patients suffer every year from complications as a result of inadequate monitoring from the use of Paralytic Drugs in the OR, highlighting the significant unmet medical need.



Source: Global operating theatre distribution and pulse oximetry supply: an estimation from reported data. L M Funk, T G Wiser et al, (Baillard C, 2000), (Debaene B, 2003), (Cammu G, 2006), (Todd MM, 2014) (Butterly A, 2010), (Fortier L-P, 2015), (Murphy G, 2011) (Dimick et al., 2004).



## Senzime leads the new, digital and EMGbased neuromuscular monitoring market





Source: Company information

### The Senzime TetraGraph System the new Gold Standard in Neuromuscular monitoring

TetraGraph® is a Train-of-Four monitor that digitally and objectively follows the patient's nervous system to indicate when its safe to wake the patient. It's based on unique algorithms and Electromyography (EMG) technology.

The TetraGraph connects to the disposable TetraSens® sensor to stimulate and record. Cleared in the US, EU, Japan and South Korea.



#### CONFIDENCE

Based on over 40 years of R&D, sprung out of Mayo Clinic, providing objective digital monitoring based on EMG to measures the first signal.



#### ACCURACY

Proprietary algorithms enabling continuous monitoring during surgery to give the anesthesiologist safety data on the active metabolite known

#### **NO LIMITATIONS**

Arms can be tucked, the TetraGraph<sup>®</sup> is easy to start and use, interoperable and uses disposable sensors.

"Helping the anesthesiologist secure the right dose of paralytics and indicate when its safe for the patient to breathe again."

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# Substantial support for the TetraGraph in international clinical guidelines





European Society of "We're in the midst of a once-in-a-decade opportunity to become a global leader in algorithm-powered monitoring solutions that help eliminate anaesthesia and respiratory related complications."

## Senzimes rapid growth rate continues into Q2 2023

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**Net sales for Q2 reached SEK 8.5 m (3.4)**. Overall growth 149%, monitors 92% and disposables 243%

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- **Increased utilization rate** of installed TetraGraph monitors driving growth
- **Product mix and production efficiencies** strengthened gross margin to 70% (50% in Q2 2022)
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- **Outlicensing deal of ExSpiron product line** on Chinese market to CoreSprion over 10 years
- 5
- **Ramping up** to meet demand as a result of new guidelines with mid- to long-term financial outlook unchanged

#### Total revenues Q1+Q2 (kSEK)



## Quadrupled sales of disposable sensors drives rapid growth rate and margins



Net sales rolling-12 months

#### Sales of TetraSens consumables, rolling-12 months





# Continued expansion of systems drives rapid sales growth and margins

#### Shipped base of TetraGraph<sup>1</sup>



#### Shipped sensors Q1+Q2 (units)



Note: 1) Includes monitors sold through direct and distributor sales, Fukuda and monitors placed at customer sites;. Source: Company information.

## Utilization rate increases driven by leading hospital accounts



#### Utilization rate, TetraSens per week<sup>1</sup>



Selected US key accounts

## TetraGraph Customer base July 2023

	Number of hospital accounts end of Q4 '22	Jan-May 2023 new account wins	Jun-July 2023 new account wins	Number of hospital accounts end of July'23
Europe	74	22	10	106
US-market	34	6	2	42
AUS & NZ	3	0	0	3
Total	111	28	12	151

\*Excludes accounts in Japan, South Korea and smaller distribution markets.



## Traction driven by large US customer wins

- XL-account with 90+ TetraGraphs of which 65 so far in use
- Clinical protocol in place to run TetraGraph on all patients with paralytic agents.
- 3-4 months to reach a high utilization rate when activated
- Each active TetraGraph is currently used >5x per week, generating sensor sales of SEK 50,000 per monitor and year
- Since start in April/May 2022, we have invoiced over 5,0 MSEK, with a 12-month run-rate exceeding 3,5 MSEK

#### Accumulated orders of sensors, US hospital





## Analyzing the installed base of TetraGraphs





Developing installed base and accounts for higher utilization

#### 5-y LTV per TetraGraph and utilization rate US (SEK)



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Education & CME ~ Your Career ~

**Research & Guidelines** ~

#### Quantitative monitoring of neuromuscular blockade is vital for patients undergoing anesthesia

ASA and ESAIC call for widespread adoption of recent guidelines developed by both professional societies

CHICAGO – Patients receiving neuromuscular blocking medications as part of their anesthetic regimen should be carefully monitored to ensure the best care and outcomes, according to recent-and independently developed-guidelines from the American Society of Anesthesiologists (ASA) and the European Society of Anaesthesiology and Intensive Care 🗹 (ESAIC). Today, the organizations published a joint letter *in Anesthesiology*, ASA's peer-reviewed medical journal, encouraging widespread implementation of the recommendations in the guidelines.

Medications that provide neuromuscular blockade are frequently used in anesthesia, both to ease the placement of a breathing tube at the beginning of the anesthetic (intubation) and to provide optimal conditions for the surgery itself. Both ASA and ESAIC guidelines for the management of neuromuscular blockade recommend patients be monitored quantitatively as part of the process, meaning that the degree of muscle relaxation is frequently checked using devices that measure the depth of muscle relaxation.

When neuromuscular blockade is not monitored, patients are at a higher risk of post-procedure weakness and lung problems, such as pneumonia and bronchitis. Current data suggest there is a high incidence of inappropriate management of neuromuscular blockade and, therefore, a higher rate of these complications than if quantitative monitoring were universal. A European survey of 17,150 patients who received neuromuscular blocking drugs found that neuromuscular monitoring was not performed in more than half (10,000) of patients, and the practice was similar in the U.S., the organizations note.



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#### New Practice Guidelines for Neuromuscular Blockade

Connie Chung, MD; Joseph W. Szokol, MD, JD, MBA; Wade A. Weigel, MD; Stephan R. Thilen, MD, MS

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The American Society of Anesthesiologists (ASA) Committee on Practice Parameters (CPP), chaired by Karen Domino, MD MPH, created a task force to develop guidelines for neuromuscular blockade (NMB) to improve patient safety and satisfaction. The Anesthesia Patient Safety Foundation (APSF) and its leadership have long advocated for guidelines on the use of NMB, its monitoring, and reversal, given the patient safety risk of residual muscle weakness. The task force, cochaired by Stephan Thilen, MD, MS, and Wade Weigel, MD, developed the 2023 ASA Practice Guidelines for Monitoring and Antagonism of Neuromuscular Blockade, which were published in a January issue of Anesthesiology.<sup>1</sup> This article will provide an overview of the new guidelines.<sup>a</sup>

<sup>a</sup>Disclaimer: ASA practice guidelines aim to improve patient care, safety, and outcomes by providing up-to-date information for patient care. Practice guidelines are subject to revision as warranted by the evolution of medical knowledge, technology, and practice. Practice guidelines are not intended as standards or absolute requirements to replace local institutional policies, and their use cannot guarantee any specific outcome.<sup>1</sup>

"Quantitative monitoring of neuromuscular blockade is recommended at the adductor pollicis muscle to confirm a TOF ratio greater than or equal to 0.9 before extubation, accompanied by the use of sugammadex or neostigmine for antagonism of blockade."



## Key new study results strengthening our case



Validating Clinically Important Neuromuscular Monitoring Endpoints: Mechanomyography (MMG) vs. Electromyography (EMG)

Roopvir Kaur MD, Julia Vogt BS, Ellie Shibly BS, Douglas Peters BS, Zafar Iqbal MD, Sweeta Gandhi MD, Thomas J. Ebert, MD, PhD. Department of Anesthesiology, Medical College of Wisconsin and CJ Zablocki VA Medical Center, Milwaukee, WI



Proving the superior accuracy of TetraGraph as compared to goldstandard laboratory validation



A Quality Improvement Project to Reduce Sugammadex Cost and Waste by Using Aliquots and Quantitative Neuromuscular Monitoring

Mark Twite, Professor of Anesthesiology at the University of Colorado & MD at Children's Hospital Colorado. Abstract at Society for Pediatric Anesthesia (SPA) and the American Academy of Pediatrics (AAP)

Proving that the

reductions

TetraGraph drives

significant drug cost



Intraoperative electromyographic monitoring in children using a novel pediatric sensor

Kalsotra S, Rice-Weimer J, Tobias JD. Intraoperative electromyographic monitoring in children using a novel pediatric sensor. Saudi J Anaesth 2023;17:378-82. June 2023.



First study of its kind to clinical validate a portable EMG-based neuromuscular monitoring system on small children



#### Prospective evaluation of an enhanced electromyographic (EMG) detection algorithm

Brull etc al. Prospective evaluation of an enhanced electromyographic (EMG) detection algorithm. Abstract presentation at European Society of Anaesthesiology and Intensive Care, May 2023.

> Proving the superior performance of our latest 5<sup>th</sup> generation EMG-algorithm

## Product market mix and move to in-house production drives gross margin

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Development of COGS (MSEK) and Gross Margin rolling-12 months (%)



## **OPEX, Earnings, Cash & Directed Issue**

- Q2 OPEX reduced to 37 101 KSEK (40 035)
- Q2 EBITDA increased to -30 201 KSEK (-38 018).
- Q2 end of quarter cash amounted to 41 635 KSEK
- Directed shares issue of 56 MSEK conducted at market pricing (12.,5 million shares at 4,5 SEK per share).
- Investors included amonth others AP4, SHB Fonder, Crafoord Stiftelsen, Adam Dahlberg (chairman) and Fredrik Rapp.
- The proceeds shall be used to continue to strengthen the Company's commercial expansion linked to the recently issued European and American guidelines, as well as to ensure delivery of innovation projects and to finance the Company's general working capital needs as a result of the background of expected growth.
- Following the transaciotn, Senzime will have 100 162 614 shares

Ten largest shareholders	30-Jun	%
Crafoord family	12 506 398	15,1
Pershing LLC	7 106 707	8,6
Handelsbanken Fonder AB	6 204 559	7,5
Segulah Venture AB och AB Segulah	5 313 271	6,4
TIN Ny Teknik	4 863 157	5,9
Fjärde AP-fonden	3 871 578	4,7
Swedbank Robur Microcap	3 382 736	4,1
The Bank of New York	2 630 927	3,2
Lindskog Family	2 425 009	2,9
Futur Pension Försäkringsaktiebolag	2 193 000	2,7
Others	32 069 318	38,8
Total	82 566 660	100,0

## Growth model in reaching +300 mSEK in sales

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### The Senzime 2025 Outlook remains intact

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#### Strategy and tactics:

- Lead the clinical and technology shift and is well positioned in a market with a high unmet need.
- Continued roll-out in the US and Europe targeting an addressable market exceeding 100 million patients per year treated in over 100,000 operating rooms and PACU beds.
- Recurring sales model with increasing utilization rates
- Supporting clinical guidelines in US and in Europe

#### Outlook 2025:



Net sales estimated to reach 275 - 325 MSEK by 2025

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Long-term EBITDA margin to exceed 40%



Senzime shall maintain a market share of at least 10% in its addressed market segments

### New quarterly KPIs reported from Q2 2023:

- Installed base of TetraGraph units and sensor unit sales
- Utilization rate of installed base of monitors
- Number of clinics using the system

## Management team and **Board of Directors**



**Philip Siberg** CEO



**GW** Hamilton VP Sales US





Johanna Faris **DIR of QA&RA** 



Adam Dahlberg Chairman



Board



**Jenny Freeman** Board



**Fredrik Norrby** CTO



**Anders Selin EVP** Sales



Johanna Tulkki

COO

Anders Jcobsson CINO

Slavo Grujicic CFO



Göran Brorsson Board

Laura Piccinini Board



Sorin Brull Board



## Wrap-up messages

Strong product offerings addressing a clinical and technological large market shift



De-risked case in scale-up phase with strong US focus and supported by new clinical guidelines

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Now driving up utilization of installed TetraGraph base and cost-effectively scaling in focus markets



Backed by strong long-term investors and run by a seasoned team on a mission to make significant impact for patients and shareholders.

