



# FY24 Results & Operational Update

Revenue stage applied materials technology -  
Unlocking global battery anode market

28 August 2024

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# HIGHLIGHTS

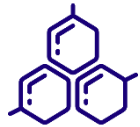
Platform laid for commercialisation activities and revenue growth into FY25 and beyond

- 1** | **Validating Anteo X™ & Ultranode™ with major European car manufacturers - next generation batteries**  
– EV1 undertaking prototype evaluation with targeted design freeze in 2024
- 2** | **Compelling Anteo X™ data underpins value proposition - major battery performance & cost benefits**  
– 1,000 charge / discharge cycles of Anode with over 70% energy retention
- 3** | **First clean energy revenues - first commercial production of ultra high silicon anode**  
- Building engagement with range of battery customers from Electric vehicles – storage applications - consumer electronics
- 4** | **US\$1.8m Take or Pay Agreement for AnteoBind with world's largest vaccine manufacturer**  
- refined life sciences strategy supported by robust data targeting near term revenues in India
- 5** | **Completed overhaul of operations for commercial success - \$3.3m cost base reduction**  
- Legacy issues resolved – Ferroglobe claim and COVID diagnostic development programme



# ANTEOTECH SNAPSHOT

ASX listed binder materials company leveraging proprietary, high performance, applied materials technology



**Revenue stage, hi-tech materials & chemistry company**  
– multiple commercial partners



Market leading, patent protected technology - **solving key technical issues**  
for the **next generation of clean energy** and **life sciences** products



**Anteo X™** performance enhancing additive **independently validated**  
-significant improvements in **Li-ion battery cycle life** and **anode performance**



**First CET revenues from major electric vehicle manufacturer**  
– first commercial manufacture of **Anteo X™** and **Ultranode™**



**AnteoBind** molecular binder **being sold** and evaluated by diagnostic and vaccine manufacturers – **Serum Institute of India – US\$1.8M Contract**



# PRODUCTS – INNOVATION DEFINING THE FUTURE

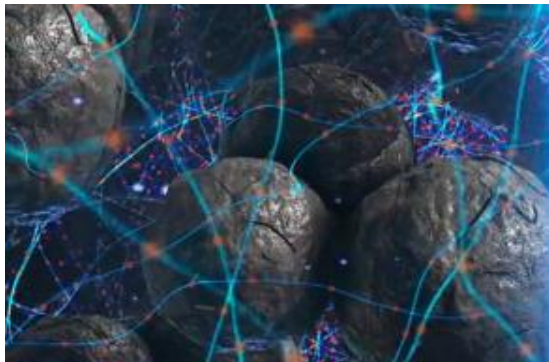
Proven technologies for the rapidly growing battery anode and life science diagnostics markets



## Clean Energy Technology

### Anteo X™

**Anteo X™** is a **performance enhancing additive** enabling the move to high silicon containing anodes and **improves their performance** in next-gen lithium-ion batteries



### Ultranode™

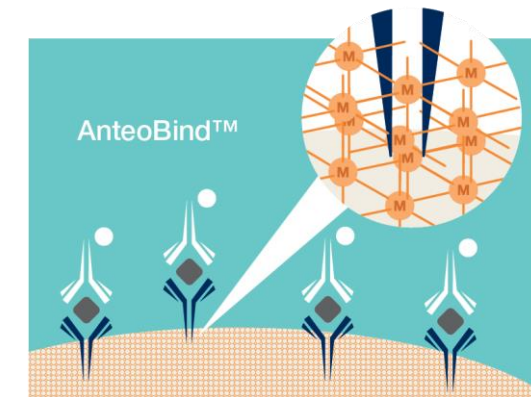
AnteoTech's **Ultra High Silicon Anode** utilises products, formulations and processes to develop a **proprietary anode** which the Company will **license to future partners**



## Life Sciences

### AnteoBind™ & AnteoBind NXT™

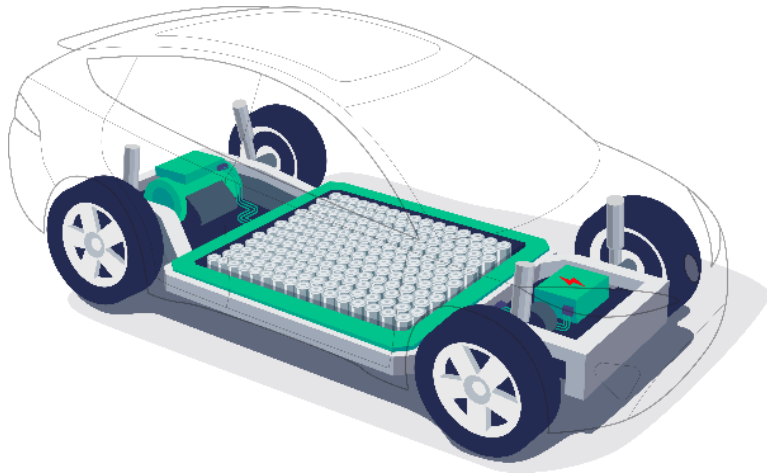
AnteoTech's **unique products** that offer significant productivity gains in the manufacture of diagnostic products



## Development Services

## UNLOCKING A \$21B OPPORTUNITY IN CLEAN ENERGY

AnteoTech's technology portfolio is the key enabler of higher silicon content anodes - unlocking the next generation of battery performance for high demand areas such as Electric Vehicles



**Electric Vehicles** are driving **demand** and **innovation** in the energy storage market



**Graphite** has reached the limit of its energy storage capabilities and is becoming **increasingly scarce and expensive**



# ANTEO X

**Increasing silicon content** in a battery anode is **key to the next generation of battery performance** and storage capabilities

# ENVIRONMENTALLY & SOCIALLY RESPONSIBLE

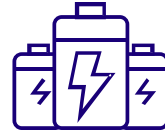
AnteoTech is committed to being a low carbon footprint, sustainable company with the highest possible ESG standards



## Quality & Accreditations

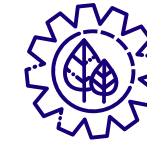
Hold ISO 13485 and ISO 9001 accreditations

Production in tier 1 jurisdiction with low sovereign risk and a robust regulatory framework



## Advancing Clean Energy Battery Technology

AnteoTech products improve performance of battery technologies, using fewer mined resources, and easy-to-use technologies that do not require high heat or solvents for activation



## Eco-Friendly Production and Low Carbon Footprint

Unrefined silicon with lower processing requirement compared to competition

Significant contributor to decarbonisation of battery manufacturing processes



## Diagnostics Enabling Life-Saving Medical Interventions

AnteoTech enables point-of-care diagnostics across a range of clinical applications bringing critical decision making to the point of care in medical cases



## Cyber Security Protections

AnteoTech has migrated to outsourced model with high quality service vendor

Multi-layer security in place

Cyber security insurance in place



## Diversity and Inclusion

Employer of choice

**40%** Female directors

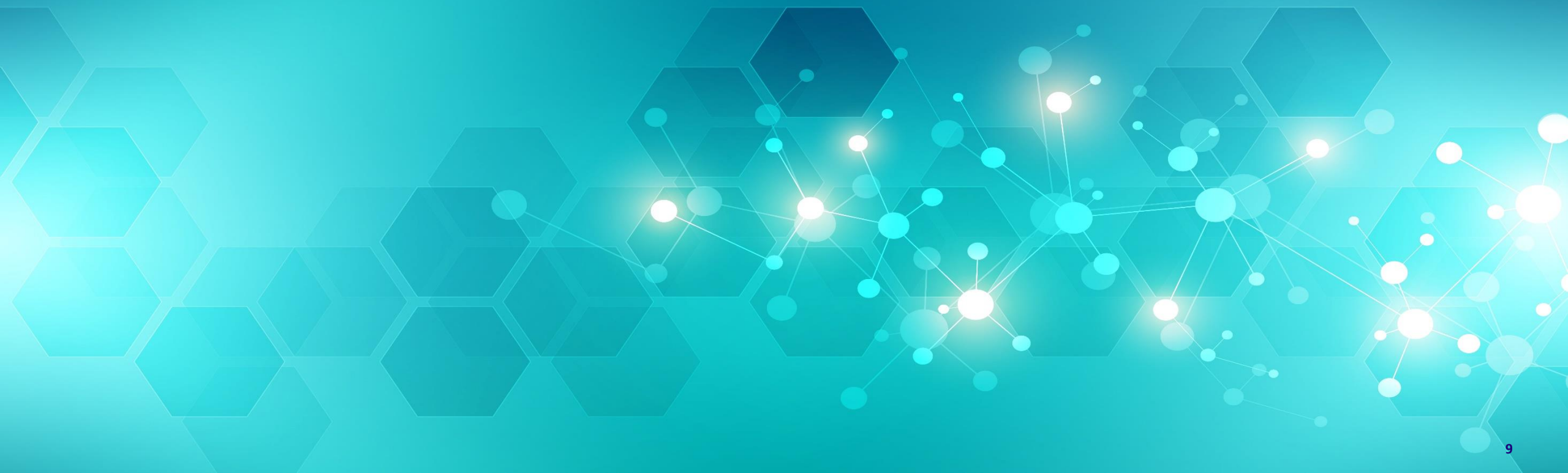
**50%** Female executive leadership

**50%** of the Company is female

**12** Nationalities represented



# FY2024 Highlights



# KEY FINANCIALS

Reduced costs and refocused resources to higher value opportunities in the clean energy market

Cash

\$5.0m

R&D Refund received<sup>3</sup>

\$3.8m

Grant Funding secured<sup>4</sup>

\$1.4m

Operating Revenue



\$0.46m



26% vs FY23

First Clean Energy revenues  
+ \$0.27m AnteoBind order in July 2024

Overhead reduction<sup>1</sup>



\$3.3m



28% vs FY23

\$8.6m Overheads from Underlying  
Operations after resolution of legacy issues

Capital Invested<sup>2</sup>



\$1.1m

Production Facility completed

Completed new manufacturing facility  
to meet customer orders of AnteoX™

<sup>1</sup> Overhead Reduction excludes non-cash operating costs (Depreciation, Amortisation, Share-based Payments) and One-off costs. One-off costs includes \$2.3m relating to Ferroglobe in FY24 and \$2.6m relating to the write-off of EuGeni Reader inventory in FY23. Statutory Reported Overheads were \$13.2m [FY23 \$16.3].

<sup>2</sup> Capital invested to construct new production facility at Eight Mile Plains, Brisbane and associated equipment, fit out and commissioning costs. Facility supports production of 20,000 litres of AnteoX per annum and is scalable

<sup>3</sup> R&D rebate received from FY2023

<sup>4</sup> Queensland Government Critical Minerals and battery Fund grant award. Funding available to AnteoTech on terms of grant award.

# FY24 ACHIEVEMENTS – COMMERCIAL TRACTION

Commercial and technical achievements position AnteoTech for near term partnering and revenue opportunities

## Clean Energy



**Testing Prototype with Anteo X™**  
Major EV manufacturer



**Anteo X™ Cycle Milestone**  
1000+ cycles, >70% retention



**First CET Revenues**  
Optimised Anode sold to EV manufacturer



**First Commercial Production**  
Ultra High Silicon Anode-70%



**Production Facility complete**  
On time and budget

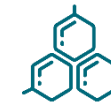


**Expanding sales team**  
VP International Sales + 3 PDMs

## Life Sciences



**US\$1.8m 5-year Agreement**  
World's largest vaccine manufacturer



**AnteoBind NXT launched**  
Major benefits in activation



**AnteoBind NXT evaluation**  
Vidcare targeting product release 2025

## Corporate



**Operational overhaul**  
Commercial ready - \$3.3m costs saved



**One off issues resolved**  
Ferroglobe + COVID tests



**\$1.4m QLD Battery Grant**  
Funds Ultra High Silicon Anode

# GOALS FOR SUCCESS IN FY25

Strategies to build on our commercial momentum – driving revenues and partnerships in FY2025

1

## **Delivering multiple revenue streams and commercial agreements - diversification**

Building our **new term revenues in life sciences** and securing **long term clean energy revenues**

2

## **Advancing our targeted high value clean energy customers - validation**

Supporting customer opportunities through **evaluation** into **commercial agreements** and **partnerships**

3

## **Building revenues from our key Indian life sciences customers - delivery**

Building the Serum Institute to India partnership into new areas and vaccines – delivering large scale Vidcare opportunity

4

## **Prudent capital management to deliver - execution**

Growing cashflows and targeted support from strategic partners

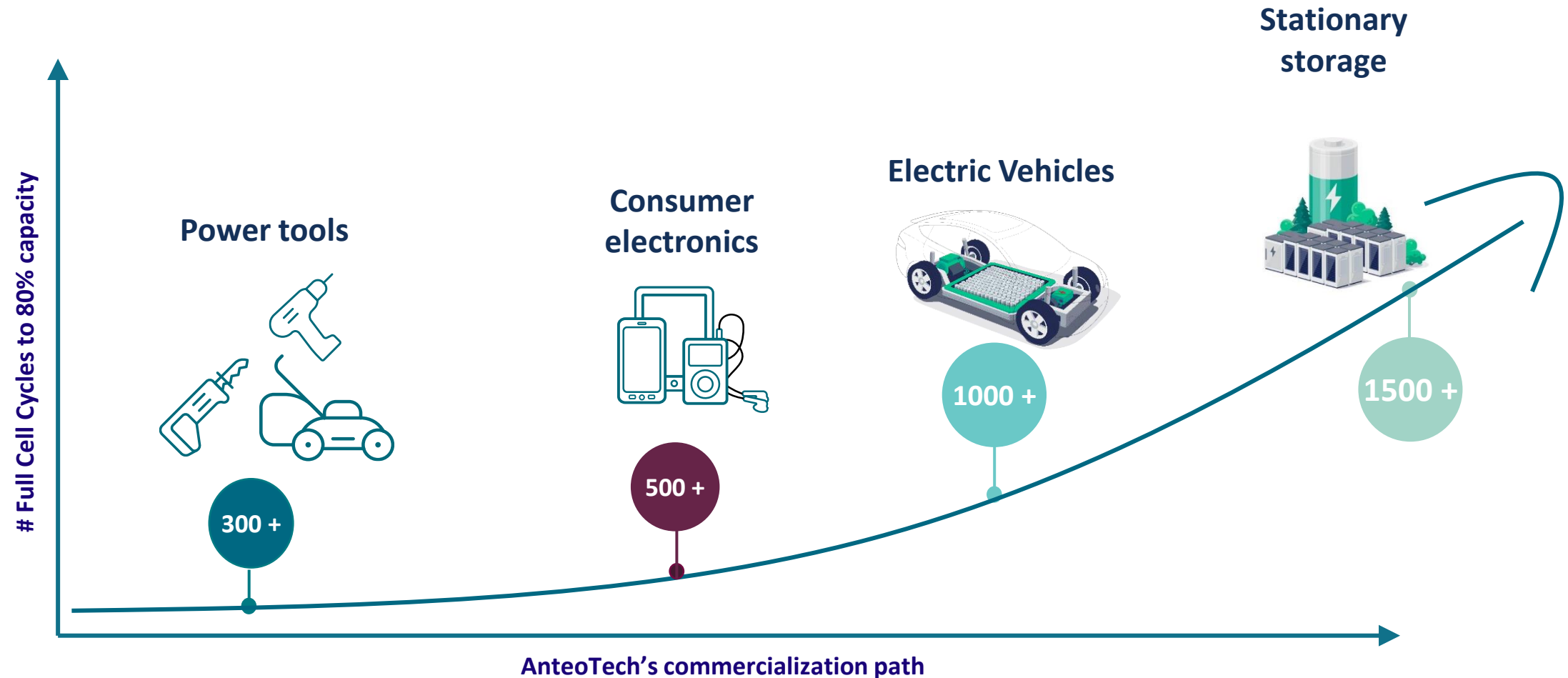


# CLEAN ENERGY TECHNOLOGY

Commercial opportunities  
and Outlook

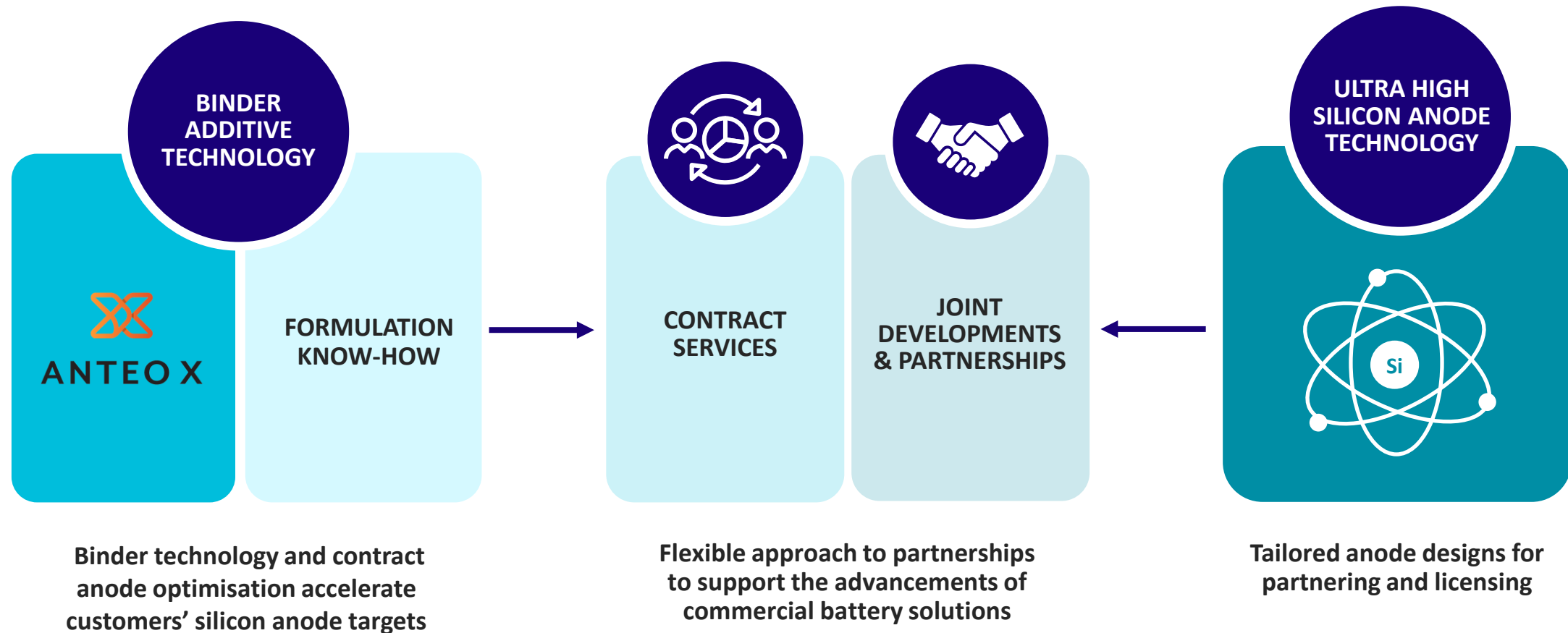
# STRATEGY – MULTIPLE ENTRY POINTS IN ANODE MARKET

Multi-pronged sales strategy with potential customers across different verticals



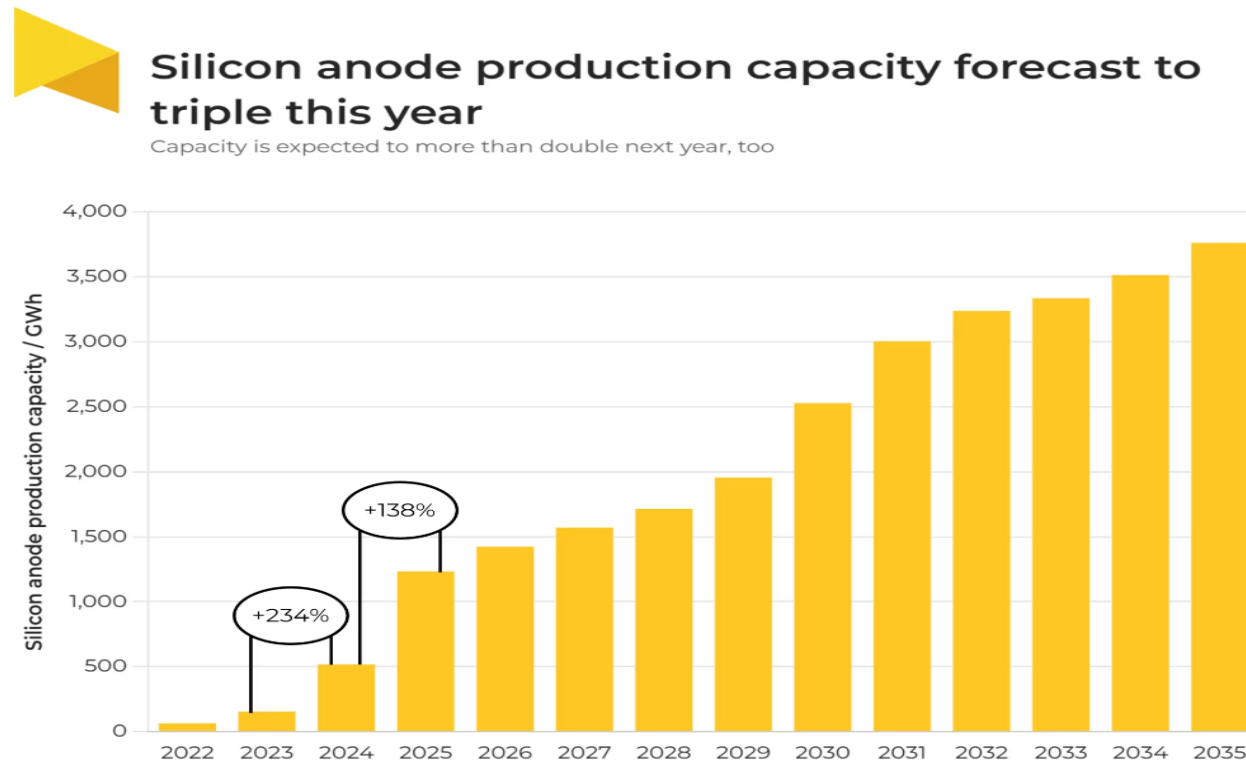
# DIVERSE REVENUE – TECHNOLOGY PLATFORMS & PARTNERSHIPS

Silicon-enabling products + anode know-how to create pathways to smaller, lighter and cheaper lithium-ion batteries



# EXPANDING MARKET - RAPID GROWTH IN HIGH SILICON ANODES

AnteoTech's market opportunity continues to expand - double digit growth of high silicon anodes in short term



Silicon anodes prepare for mainstream deployment with production capacity set to triple in 2024:  
**Benchmark Minerals Communications 18<sup>th</sup> July 2024**

- X Current High Silicon anodes using **expensive silicon materials**
- X Current approaches viewed as **too costly** for all but the most expensive EVs
- ✓ **AnteoTech's** leading products **Ultranode** and **Anteo X** address these key issues -
  - ✓ **Low grade, unrefined silicon**
  - ✓ **8.5x cheaper** active material
  - ✓ **35% improvement** battery charge & life
  - ✓ **3x thinner** and also lighter



# EV MARKET IS CHANGING - DEMANDING RAPID COST REDUCTION

Market demands for cost reductions yet simultaneous desire for increased energy density is creating a challenging scenario

- To increase the energy density of anodes the role of silicon needs to evolve from additive to main component
- Increase in silicon content has challenges in terms of cost and performance – **Anteo X™ & Ultranode address these issues**
- **EV market is rapidly changing – hybrid vehicles growing in popularity**



Low cost



Stable performance



Managed silicon expansion

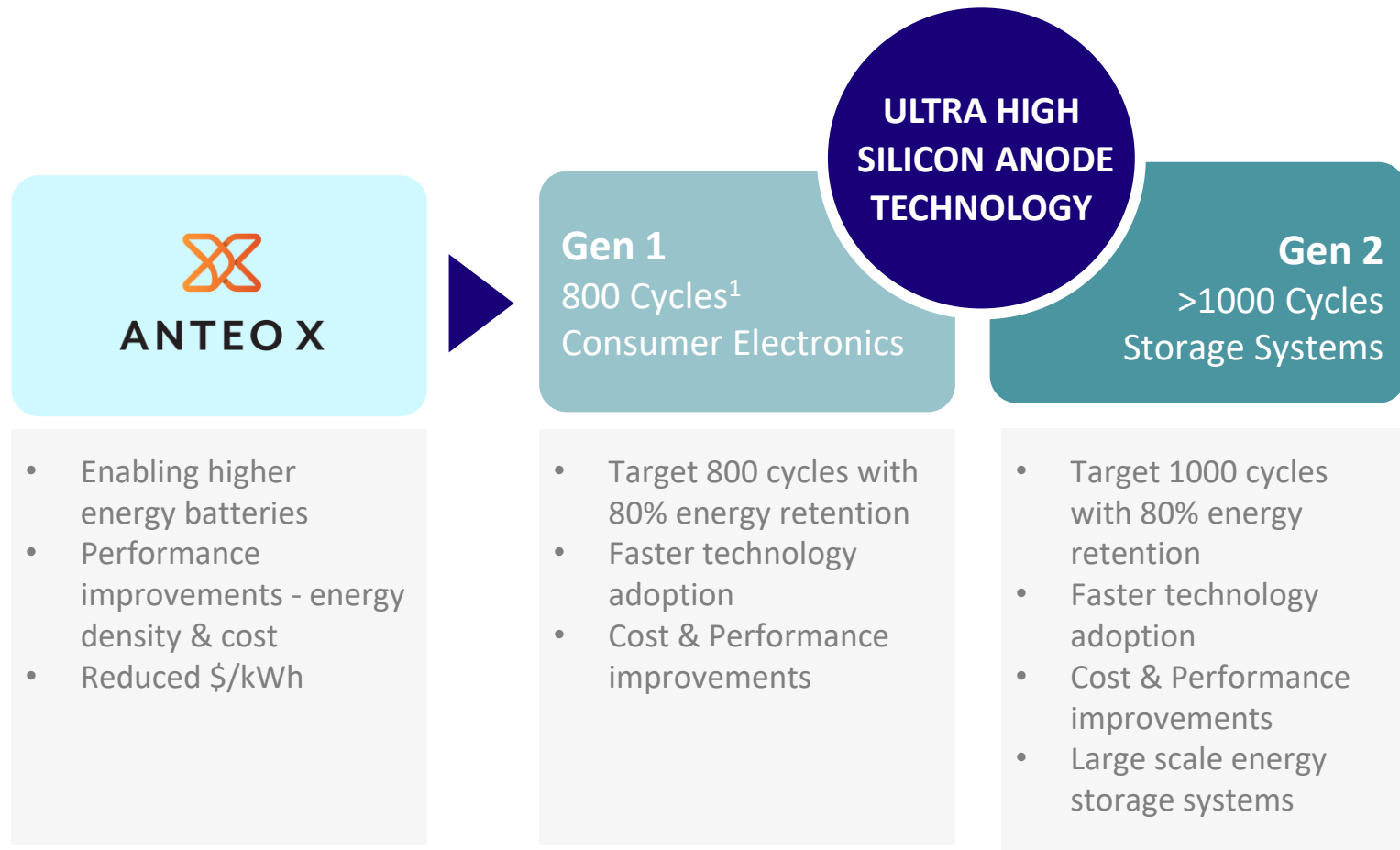


Existing supply chains



# CONSUMER ELECTRONICS – LOW REGULATORY HURDLES & FAST ACCESS

Silicon enabling Anteo X™ and Anode design expertise create a faster pathway - starting with the consumer electronics market



1. Proprietary Ultra High Silicon anode (70%) currently at >650 cycles and 80% energy retention. Focus upon incremental development to reach targets.

# ANTEO X™ COMPELLING NEW TECHNICAL DATA

Data validates our market leading value proposition – supports customer engagement



**1000+ Cycles** w/ >70% energy retention



**38%** Increase in capacity retention



**50%** reduction in CNT usage

## Anode Optimisation Program – leading European car manufacturer - EV1

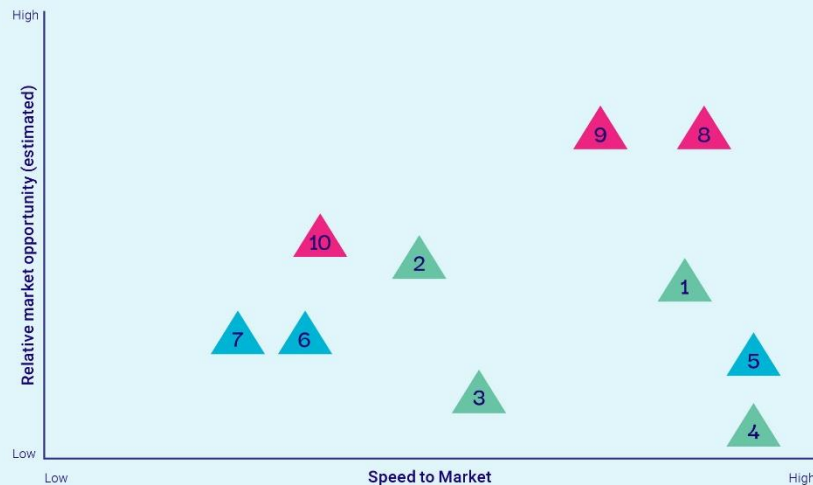
- AnteoTech engaged to optimise EV1's proprietary anode formulation
- Anteo X™ incorporated in EV1's "high performance anode"  
- 9 months testing in their independent laboratory
- Independent technical data presented at Industry Conferences
- Enhanced **performance**, **minimised costs** and **improved safety**

**Data lead approach supporting customer engagement**

# PORTFOLIO OF CUSTOMERS – MARKET DIVERSITY

Targeted near term revenues from both battery and chemistry companies

Our opportunities across Silicon Anode Battery Markets



Market Segments

Consumer Electronics (800+ Cycles*)	Advanced Chemistries (carbon nano-tube (CNT) & separators)	Electric Vehicles (1000+ Cycles*)
<b>Opportunities</b> 1. Consumer Batteries 1 2. E-Mobility 1 3. E-Mobility 2 4. Medical Device 1	<b>Opportunities</b> 5. Separator Company 1 6. Multi Wall Carbon Nano-Tube 1 7. Single Wall Carbon Nano-Tube 1	<b>Opportunities</b> 8. EV1 9. EV2 10. EV3

\* Battery cycle life @ 80% retention  
 2. In-house calculations of addressable market size / data source: Avicenne Energy 2023, CNT market size for energy storage 2023, Ceramic coated separator market 2021

## Market segmentation to cover major segments in supply chain

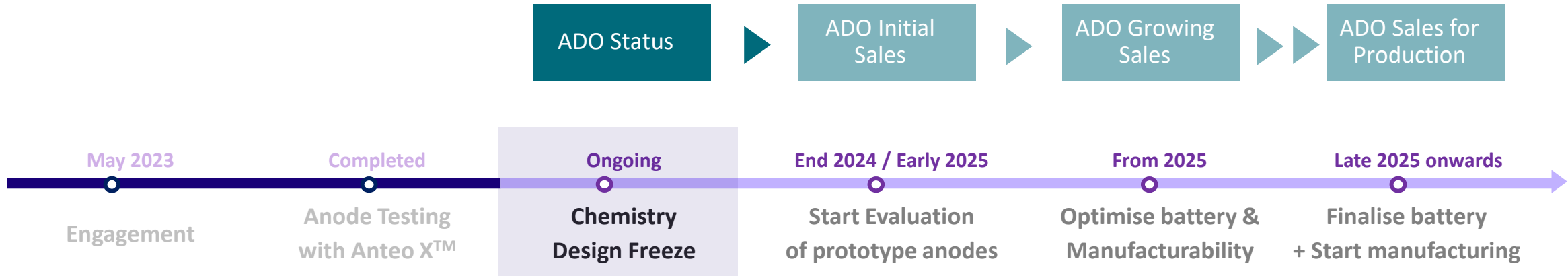
- **Electric Vehicle manufacturers** - three European marquee EVs at different stages of commercialization
- **EV1** targeted “Design Freeze” late in 2024, with orders expected for high silicon anode evaluations in parallel development
- **EV2** planning to evaluate Ultranode technology in FY2025
- **EV3** -early stage scoping
- **Separator project** and **Medical Device** companies targeted for short term revenues
- Multiple opportunities for sales revenues

## Strong engagement across the battery supply chain



# EV1 PROTOYPE TESTING - TARGETING NEAR TERM SALES

Major European EV manufacturer confirmed Anteo X™ benefits – prototype testing for next generation battery



## Key Customer Benefits



Major **cost savings** per EV



**38%** performance increase with **Anteo X™**

## Outcomes for AnteoTech



First marquee customer **delivers validation**



Sales ramp over **long term lifetime of EV range**

\* All dates are estimates and can change based on the results of testing and the requirements of EV1. There is no guarantee that AnteoTech (ADO) will receive any sales or a commercial agreement

# LIFE SCIENCES

Building Targeted Revenues  
and Outlook

# ANTEOBIND™ FIRST TAKE OR PAY PURCHASE AGREEMENT

World's largest vaccine manufacturer extends partnership – commenced long term revenue opportunity



Serum Institute of India, is a privately held Indian company and the world's largest vaccine manufacturer, selling over 1.5 billion vaccine doses annually across 170 countries globally. Partnership to use AnteoTech's product to achieve **material cost and product advantages** in **vaccine quality assurance** processes for **current and future vaccines**.

**Initial Term:** Five years

**Min. Orders:** US\$0.37m per annum – US\$1.8 total

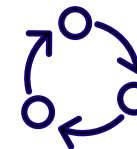
**Pricing:** Incentivises Product Orders **above min. order levels**

**Rights:** No grant of intellectual property rights & **no exclusivity**

**Revenue Opportunity** – Estimated 20-year lifetime of each new SII vaccine approved by regulatory bodies with AnteoTech part of the approved processes – provides growing revenue opportunities for AnteoTech as production of each vaccine grows over the lifetime.



**US\$1.8m min.** Purchase Agreement – 5 years



**Validation** by partnering with **world's largest vaccine manufacturer**



**Major upside** – included in approved vaccine **quality assurance processes**

# ANTEOBIND NXT – IN COMMERCIAL EVALUATION

Successful evaluation by Vidcare to drive new revenues – 2025 planned launch of diagnostic test supported by Indian Government

## AnteoBind NXT benchmark study<sup>1</sup> delivers:

*When compared with the industry standard “EDC/s-NHS”*



**Cost savings of 50%** for antibodies used



**Stronger** visual-and reader generated **signals**



**Doubling** in the overall **sensitivity**

1. Benchmark study prepared by AnteoTech with AnteoBind NXT to support customer value proposition. Vidcare plan to include AnteoBind NXT in diagnostic test and conduct real world validation trials of product performance.



Vidcare Innovations is an Indian leader in portable diagnostic tests supported by the Indian Government. AnteoBind NXT lab results **demonstrate improve particle activation** for Vidcare’s proprietary in-home test for diagnosis of hypothyroidism (or underactive thyroid) – **an enormous health issue in India.**

**Agreement:** Memorandum of Understanding

**Objectives:** **Performance benefits evidenced** in initial evaluations

**Outcome:** **Supply agreement** upon successful evaluation

**Timing:** Vidcare planning to launch product in **early 2025**

**Revenue Opportunity** – Hypothyroidism is a major health issue if untreated, causing death and fetal complications – **1 in 10 adult Indians are affected – major focus to be funded by the Indian Government**



# FY2025 and Beyond



# COMMERCIAL OBJECTIVES & MILESTONES\*

## FY2024 – Building the foundation

- First **AnteoX™** revenues
- First **commercial scale Ultranode™** production
- **AnteoX™** technical milestone - 1000+ cycles
- Complete construction **Anteo X™** production facility
- AnteoBind™ **Commercial agreement** – US\$1.8m
- Initial validation of **AnteoX™** with EV1 - advance
- **Cut & realign cost base** + resolve legacy issues (Ferroglobe and COVID test development)

## FY2025 – Commercial execution

- **Vidcare validation & commercial agreement** for AnteoBind NXT
- Clean energy **commercial / development partnerships** – targeting EV2, battery manufacturers, consumer electronics
- **Ultranode™** Technical milestone – 1,000+ cycles, 80% retention
- **Design Freeze with EV1** for EV battery
- **Development partnerships** – Ultranode™
- Drive **increased revenue** and **customer base**
- **Commercial agreement – EV1**

\*All milestones are estimates and actual timing and events may vary

# CORPORATE SNAPSHOT

Balance Sheet strengthened with new institutional shareholders joining the share register in FY24

Market Capitalisation<sup>1</sup>

\$51.8m

Cash

\$5.0m

R&D Refund expected<sup>2</sup>

\$2.7m

Debt

Nil



## Capital Structure

Shares (ADO)	2,469 million
Options (ADOO)	148 million
Unlisted Options	181 million
Institutions	7.5%
Top 20	23.3%
Board & Mgmt	1.4% + Options

<sup>1</sup> Closing share price on 19 August 2024

<sup>2</sup> Estimated rebate for FY24 expected to be received by Dec 24

## FIVE KEY TAKEAWAYS

### **Next generation battery technology – underpinned by compelling data**

Patent-protected, cost effective, platform technology unlocks high silicon battery anodes market.  
1,000 charge / discharge cycles of Anode with over 70% energy retention → Target 80%

### **First clean energy revenues – platform for sales and growth**

Multiple high value targets: EV – battery manufacturers – consumer electronics  
Near term sales growth supplying product for testing & development services

### **Life sciences revenues already locked in – more growth ahead**

US\$1.8m Take or Pay Contract expected to grow as new vaccines approved – Vidcare testing  
inclusion of AnteoBind for launch in 2025

### **Completed overhaul of operations for commercial success**

\$3.3m cost base reduction with legacy issues resolved. Commercial leadership team in place with  
realignment of resources to drive growth

### **FY25 - multiple near term valuation inflection points**

Targeting major advancements towards commercial agreements with EV1 & EV2 - progressing  
with other clean energy customers – growing revenues in life sciences to meaningful levels



# APPENDICES - TECHNOLOGY



# COMMERCIALLY EXPERIENCED LEADERSHIP TEAM



**David Radford** - *Managing Director*

- Highly experienced senior executive with a track record of successfully commercialising technology
- Former CEO of Nanosonics (ASX:NAN), General Manager Asia of GE Clinical Systems Services



**Katrina Byrne**  
*Chief Operating Officer*

- Extensive domestic and international experience in operations, projects and supply chain management across multiple industries
- Proven track record in Senior Executive positions leading rapid commercialisation of R&D breakthroughs, Boeing and Rio Tinto



**Andrew Cook**  
*Chief Financial Officer*

- 20+ years' experience in senior financial roles — focus on energy & renewables
- Track record in leading international teams and negotiating contracts with large corporates including roles at Origin Energy and Energy Queensland



**Manuel Wieser**  
*Chief Technology Officer*

- 11+ years' experience in lithium-ion battery product development and technology commercialisation
- Track record in delivering global commercial partnerships and taking technology from lab-scale to pilot production



**Tsui Min Lian**  
*Chief Marketing Officer*

- Experience building and managing healthcare businesses to grow and/or change to become profitable, efficient market leaders
- 17+ years' driving change and transformation with growth and positive outcomes, including GE, ResMed and Toll Holdings

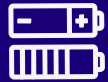


**Friederike Graser**  
*Director Strategic Growth Initiatives*

- 12+ years' experience in emerging renewable technologies and energy sector
- Experience in merger and acquisitions, due diligence reviews and capital raising programs



# LITHIUM-ION BATTERY ANODES - A NEED FOR A STEP CHANGE

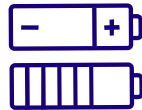


## Changing battery market dynamics - Graphite



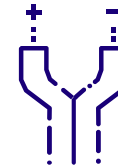
## The Solution - Silicon

### Lithium-ion



- Li-ion is the most common battery chemistry in electric vehicles and items such as laptops and phones
- Key industry challenges are **reducing cost, weight** and **extending battery life**
- Significant investment in cathodes is now **pivoting to enhancement of the anode**

### Graphite Anode



- Graphite is the current preferred material in Li-ion battery anodes
- Graphite is **more expensive** and in **limited supply**\*
- Graphite anode performance has reached its **technological limit**

### Shift to Silicon

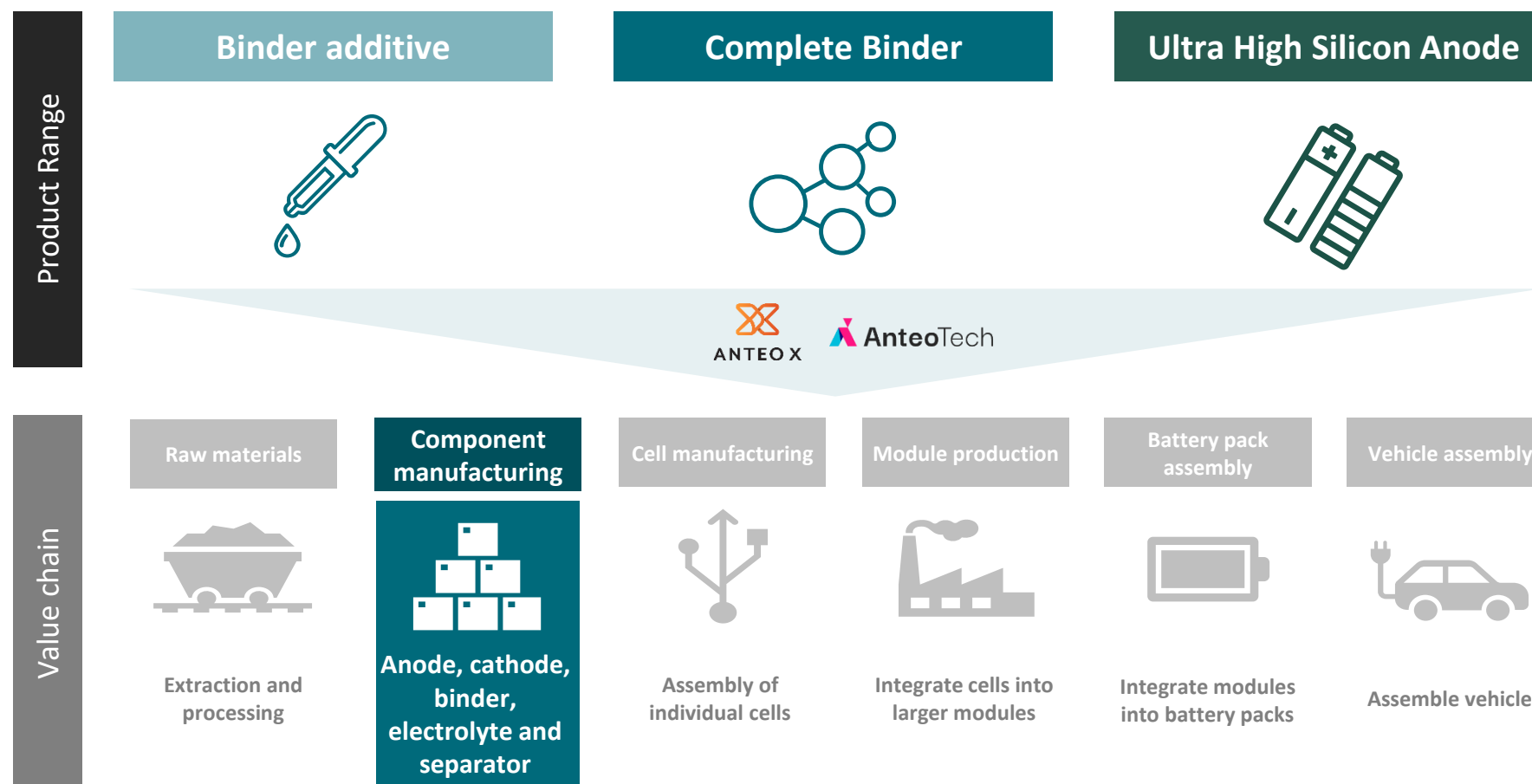


- Increasing **silicon** content in the anode improves energy density and performance
- High-content **silicon anodes** can reshape the EV landscape
- EV manufacturers including **Tesla** and **Mercedes** are planning to develop and utilise high silicon anode technology

\*Based on graphite's cost estimate of 14.4 \$/kWh (S&P Market Intelligence) vs. \$1.2 \$/kWh (Tesla 2020 Battery Day presentation) for crude silicon

# LITHIUM-ION BATTERY VALUE CHAIN

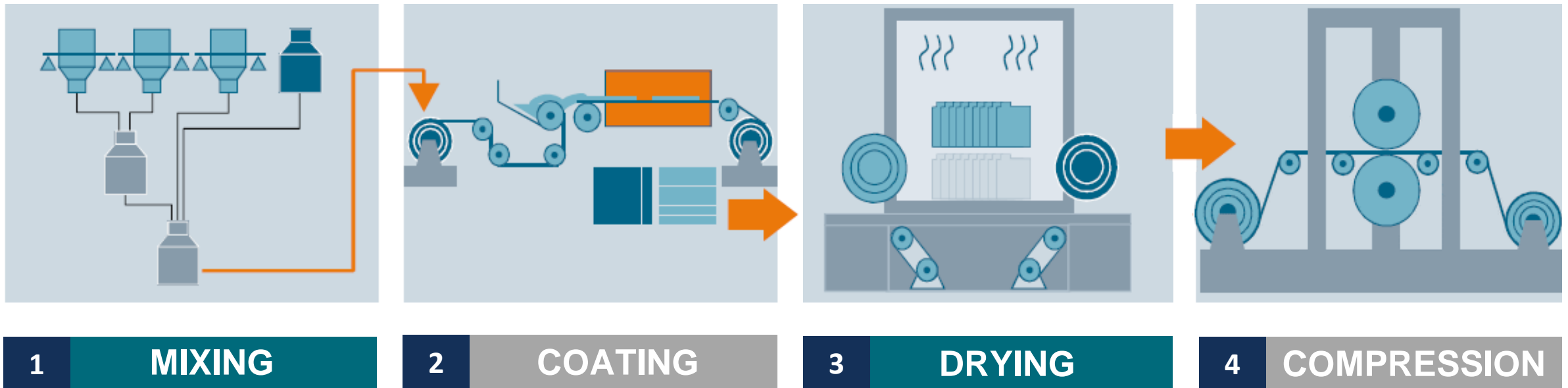
Targeting multiple market entry points including battery component manufacturers and end users



# ANTEO X™ BINDER ADDITIVE TECHNOLOGY

Anteo X™ designed with the intent to not change any parameters on existing manufacturing processes

- (1) Integrates seamlessly with Mixing Step (1) and activates during Drying Step (3)
- (2) Added to the process as the final component



# ANTEO X IS PRODUCTION READY

Enhancing in-house Anteo X™ production and battery design and testing capabilities



**Production facility completed** – February 2024



**First production scale Anteo X™ batch** – April 2024



**Scalable from 20k to 80k litres p.a.** – same site with nominal cost



**Meeting customer requirements** – timely supply and customisation of products



Above: Equipment installation and commissioning in Anteo X™ facility.

# COMPELLING DATA - SILICON ANODE — ACTIVE % VS. INACTIVE %

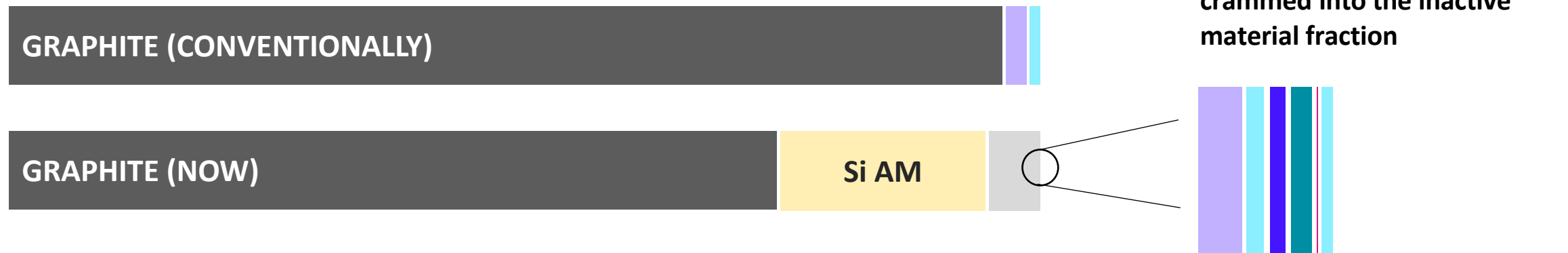
Deep experience and capabilities in silicon anode development and designs

## Optimising the inactive material fraction matters

- Optimisation of <5wt.% of the anode composition can create substantial performance and cost advantages
- Incorporation of silicon AMs into anodes triggered the uptake of advanced components for the inactive material fraction
- Provides companies with more levers to improve performance but also makes formulation development more time-consuming

## Partnering for acceleration

- Expertise in formulation development across range of binders and conductive/structural additives
- Anteo X™ binder additive technology improves silicon integration and stabilisation
- Flexible approach to partnerships to support the advancements of commercial battery solutions



# COMPELLING DATA - SILICON CARBON COMPOSITE ANODE – 750 mAh/g

Clear impact of the addition of Anteo X™ on silicon anode performance

(1) Baseline experiment to evaluate response of anode system to the change in one parameter

- Anode coating capacity at C/2: ~620 mAh/g paired with NCM532 cathode: 3.8 mAh/cm<sup>2</sup>
- Binder type: CMC/SBR
- Total binder: 3%

